Port of Seattle

East Waterway, Harbor Island Superfund Site:
Phase 1 Removal Action

EAST WATERWAY PHASE 1 REMOVAL ACTION: RECONTAMINATION MONITORING 2006 DATA REPORT

For submittal to:

The US Environmental Protection Agency
Region 10
Seattle, WA

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Table of Contents

List of Figures

Acronyms

AET	apparent effects threshold
ARI	Analytical Resources, Inc.
BEHP	bis(2-ethylhexyl)phthalate
GC/ECD	gas chromatograph-electron capture detection
GC/MS	gas chromatograph-mass spectrometry
CCV	continuing calibration verifications
CSL	cleanup screening level
CVAA	cold vapor atomic absorption
DMMP	Dredged Material Management Program
EPA	US Environmental Protection Agency
EWW	East Waterway Operable Unit of the Harbor Island Superfund site
ICP-AES	inductively coupled plasma-atomic emission spectrometry
ID	identification
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PSEP	Puget Sound Estuary Program
RMP	recontamination monitoring plan
SDG	sample delivery group
SMS	Washington State Sediment Management Standards
SQS	sediment quality standards of SMS
SVOC	semivolatile organic compound
TOC	total organic carbon
Windward	Windward Environmental LLC

1.0 Introduction

This data report presents the results of the chemical analyses conducted with surface sediment samples collected as part of the recontamination monitoring plan (RMP) (Windward 2005) for the East Waterway Phase 1 Removal Action Plan. The RMP presented the sampling design and analysis plan, including details on project organization, field data collection, laboratory analyses, and data management. As described in the RMP, the data will be used to evaluate compliance with the cleanup standards identified in the Phase 1 Removal Action engineering evaluation and cost analysis, characterize surface sediment chemistry throughout the removal area, assess the thickness of the sand layer, and assess any changes in surface chemistry or sand layer thickness over time. This information will be used in the remedial investigation/feasibility study planned for East Waterway (EWW).

Sediment cores were collected at 21 locations to confirm the thickness of the sand layer. Surface sediment grab samples were collected for chemical analyses at 20 locations in the EWW Phase 1 Removal Action footprint in January 2006. All surface sediment samples were analyzed for polychlorinated biphenyls (PCBs), organochlorine pesticides, mercury and metals, and semivolatile organic compounds (SVOCs) listed in the Washington State Sediment Management Standards (SMS).

The remainder of this report is organized into the following sections:

- Section 2.0 –Sediment Core and Grab Sampling Methods
- Section 3.0 – Laboratory methods
- Section 4.0 – Results
- Section 5.0 – References

The text of this report is supported by the following appendices:

- Appendix A – Data tables
- Appendix B – Data management
- Appendix C – Data validation reports
- Appendix D – Raw analytical laboratory data
- Appendix E – Collection forms and field notes
- Appendix F – Chain-of-custody forms

2.0 EWW Sediment Core and Grab Sampling Methods

This section presents the surface sediment sample identification (ID) scheme, sample locations, collection methods, and field deviations from the RMP (Windward 2005) for samples collected in the EWW in January 2006. Additional details regarding the surface sediment collection methods are presented in the RMP. Copies of field notes, surface sediment collection forms, and protocol modification forms are presented in Appendix E. Copies of completed chain-of-custody forms used to track sample custody are presented in Appendix F. Photographs of the sediment cores are provided on a compact disk (located in a pocket inside the back cover).

2.1 SAMPLE IDENTIFICATION SCHEME

Each sampling location was assigned a unique alphanumeric location ID number. The first four characters were "EW-RM" to identify the EWW recontamination monitoring event. The last characters were consecutive numbers between 1 and 30 to identify the specific location within the EWW (e.g., EW-RM-1). Sample IDs were consistent with the location IDs but also included the two-digit year after the event identifier. For example, a sample taken at location 1 this year was identified as "EW-RM06-1."

Field quality assurance/quality control samples were assigned modified sample identifiers as described below:

- Field duplicates were assigned a unique sample location number beginning with 101 (e.g., EW-RM06-101).
- Rinsate blanks were assigned the same characters as the sample identifier, followed by the identifier "RB." For example, the rinsate blank collected for sample EW-RM06-1 would be "EW-RM06-1-RB."

2.2 SAMPLING LOCATIONS

The rationale for selecting sediment core and surface grab locations is presented in the RMP (Windward 2005). Sampling was conducted January 12, 23, and 24, 2006. Twenty eight locations were sampled (Table 1). Twelve locations were designated in the RMP for depth core sampling only. However, if there were less than 10 cm of sand layer observed at a core location or if there were at least 2 cm of material overlying the sand layer, then a sediment chemistry grab sample was collected at the location. Sampling locations are shown in Figure 1.

Table 1. EWW sediment core and grab sampling locations

Location ID	Zone[a]	Sample Date	Sample Time	Actual Coordinates[b] (X)	Actual Coordinates[b] (Y)	Target Coordinates[b] (X)	Target Coordinates[b] (Y)	Distance Off Target (ft)	Sample Type
EW-RM01	1	01.12.06	0913	1267410	214187	1267413	214188	2.7	chemistry grab
EW-RM02	2	01.12.06	0930	1267727	214220	1267726	214222	2.5	chemistry grab
EW-RM03	2	01.24.06	0912	1267653	214296	1267657	214293	5.3	core
		01.24.06	1321	1267652	214294			5.3	chemistry grab
EW-RM04	1	01.24.06	1338	1267260	214433	1267258	214434	2.1	chemistry grab
EW-RM05	2	01.23.06	0847	1267518	214454	1267519	214458	4.3	core
		01.24.06	1351	1267518	214460			2.3	chemistry grab
EW-RM06	2	01.24.06	0939	1267728	214454	1267730	214452	2.9	core
		01.24.06	1404	1267729	214452			1.1	chemistry grab
EW-RM07	1	01.24.06	1415	1267460	214581	1267462	214581	2.2	chemistry grab
EW-RM08	2	01.24.06	1005	1267367	214644	1267368	214645	1.2	core
		01.24.06	1426	1267368	214644			1.4	chemistry grab
EW-RM09	2	01.23.06	0924	1267645	214659	1267647	214659	1.7	core
EW-RM10	2	01.24.06	1048	1267529	214703	1267527	214703	2.3	core
		01.24.06	1437	1267530	214703			2.7	chemistry grab
EW-RM11	2	01.23.06	0958	1267443	214764	1267439	214767	4.7	core
EW-RM12	2	01.23.06	1305	1267262	214780	1267254	214787	11.1	core
EW-RM13	2	01.23.06	1340	1267519	214788	1267518	214788	1.4	core
EW-RM14	2	01.23.06	1407	1267526	214848	1267527	214849	1.2	core
EW-RM15	3	01.12.06	0835	1267660	214866	1267653	214869	7.6	core
		01.12.06	1133	1267647	214877			9.6	chemistry grab
EW-RM16[c]	2	01.12.06	0947	1267619	215022	1267620	215021	1.3	chemistry grab
EW-RM17	2	01.23.06	1439	1267481	215017	1267477	215018	4.0	core
EW-RM18	2	01.24.06	1111	1267317	215027	1267317	215030	2.8	core
		01.12.06	1533	1267314	215030			3.2	chemistry grab
EW-RM19	3	01.23.06	1112	1267653	215081	1267654	215081	1.4	core
		01.24.06	1506	1267629	215096			28.9	chemistry grab
EW-RM20	2	01.24.06	1134	1267310	215159	1267308	215161	2.4	core
		01.12.06	1524	1267311	215162			3.3	chemistry grab
EW-RM21	2	01.23.06	1508	1267599	215152	1267600	215153	1.8	core
		01.24.06	1518	1267598	215152			2.0	chemistry grab
EW-RM22	3	01.23.06	1138	1267770	215170	1267770	215171	1.4	core
EW-RM23	2	01.24.06	0849	1267406	215274	1267408	215271	4.0	core
		01.12.06	1511	1267408	215270			0.7	chemistry grab
EW-RM24	1	01.12.06	1000	1267607	215311	1267609	215311	2.3	chemistry grab

Location ID	Zone[a]	Sample Date	Sample Time	Actual Coordinates[b] (X)	Actual Coordinates[b] (Y)	Target Coordinates[b] (X)	Target Coordinates[b] (Y)	Distance Off Target (ft)	Sample Type
EW-RM25	1	01.12.06	1018	1267648	215503	1267653	215501	5.7	chemistry grab
EW-RM26	2	01.23.06	1558	1267433	215676	1267436	215674	3.4	core
		01.12.06	1456	1267430	215676			6.4	chemistry grab
EW-RM27	2	01.23.06	1534	1267654	215743	1267654	215744	0.7	core
EW-RM28	2	01.24.06	0817	1267560	216033	1267557	216035	4.0	core
		01.12.06	1442	1267556	216035			1.3	chemistry grab

[a] Zone 1 is area with no interim action, Zone 2 is area with sand layer placement, Zone 3 is mound area where gravel layer was placed

[b] Washington State Plane North, NAD83, US survey ft.

[c] Field duplicate EW-RM06-101 was collected at this location.

2.3 Sampling Methods

Sediment cores were initially collected using a gravity corer with a 3-inch (outer diameter) steel core tube and a butyl acetate core tube liner. A vibratory core sampler (vibracorer) was used after initial attempts with the gravity corer failed to achieve the necessary penetration. The vibracorer was able to achieve the minimum target penetration depth of 80 cm. At each sample location, total water depth and total sediment recovered were measured and recorded in the field log book. Time and date of core collection were also recorded. Cores were photographed through the clear liner, and specific details including the presence or absence of the sand layer, the depth of the sand layer, and visible organic material of each core were documented.

Surface sediment grab samples were collected with a stainless steel, 0.1-m^2 van Veen grab sampler. Before processing, each successful grab sample was evaluated for acceptability in accordance with the criteria listed in the RMP. Sediment samples for chemical analysis were collected from the 0-to-10-cm-depth interval with a clean stainless steel spoon and placed into a clean stainless steel bowl for homogenization.

2.4 Field Deviations from the RMP

Field deviations from the RMP (Windward 2005) included modifications to the core sampling method and core acceptance criteria. These field deviations did not affect the data quality and are discussed below. The US Environmental Protection Agency (EPA) was consulted on these changes.

- A sediment core collected from location EW-RM15 was accepted, although it did not meet the minimum penetration depth criteria (80 cm). After multiple attempts, 60 cm of penetration was achieved and a 2- to 2.5-cm layer of material was observed above the sand layer resulting in the collection of a sediment grab sample.

- Sediment cores were not collected using a 3-inch (outer diameter) gravity corer because initial attempts with added weights on January 12, 2006, could not penetrate enough of the sand and gravel cap layer to meet core penetration acceptance criteria. The coring equipment was switched to a 4-inch (outer diameter) Vibracorer following consultation with EPA.

3.0 Laboratory Methods

The methods used to chemically analyze sediment samples are described briefly in this section and in detail in the EWW RMP (Windward 2005). This section also summarizes any laboratory deviations from the RMP. All chemical analyses of the sediment samples were conducted at Analytical Resources, Inc. (ARI).

3.1 Analytical Methods

The chemical testing adhered to the most recent EPA analysis protocols which represent standard methods used for the analysis of these analytes in sediments. Table 2 summarizes the specific methods used to analyze the sediment samples.

Table 2. Chemical analysis methods for surface sediment samples

Parameter	Method	Reference
PCBs as Aroclors	GC/ECD	EPA 8082
Organochlorine pesticides[a]	GC/ECD	EPA 8081A
SVOCs (including PAHs)[b]	GC/MS	EPA 8270C
Mercury	CVAA	EPA 7471A
Other metals[c]	ICP-AES	EPA 6010B
Grain size	sieve/pipette	PSEP (1986)
TOC	combustion	Plumb (1981)
Total solids	oven-dried	EPA 160.3

[a] Target pesticides included: 4,4'-DDT, 4,4'-DDE, 4,4'-DDD, 2,4'-DDT, 2,4'-DDE, 2,4'-DDD, aldrin, alpha-BHC, beta-BHC, delta-BHC, gamma-BHC, oxychlordane, alpha- and gamma-chlordane, cis- and trans-nonachlor, dieldrin, alpha- and beta-endosulfan, endosulfan sulfate, endrin, endrin ketone, endrin aldehyde, heptachlor, heptachlor epoxide, hexachlorobenzene, methoxychlor, mirex, and toxaphene.

[b] Target PAHs included: anthracene, pyrene, dibenzofuran, benzo(g,h,i)perylene, indeno(1,2,3-cd)pyrene, benzo(b)fluoranthene, fluoranthene, benzo(k)fluoranthene, acenaphthylene, chrysene, benzo(a)pyrene, dibenz(a,h)anthracene, benz(a)anthracene, acenaphthene, phenanthrene, fluorene, 2-chloronaphthalene, naphthalene, and 2-methylnaphthalene.

[c] Target metals included: arsenic, antimony, cadmium, chromium, copper, lead, nickel, silver, and zinc.

CVAA – cold vapor atomic absorption

GC/ECD – gas chromatograph-electron capture detection

GC/MS – gas chromatograph-mass spectrometry

EPA – US Environmental Protection Agency

ICP-AES – inductively coupled plasma-atomic emission spectrometry

PAH – polycyclic aromatic hydrocarbon
PCB – polychlorinated biphenyl
PSEP – Puget Sound Estuary Program
SVOC –semivolatile organic compound
TOC – total organic carbon

3.2 LABORATORY DEVIATIONS FROM THE RMP

There were no laboratory deviations from the methods and procedures described in the RMP, with the following exception. The RMP lists EPA Method 9060 as the test method for total organic carbon (TOC). Plumb (1981) is the correct method reference for TOC analysis in these sediment samples.

4.0 Results

4.1 COVER LAYER VERIFICATION RESULTS

Twenty-one core samples were collected in the areas where sand or gravel cover material had been placed (Zones 2 and 3)to confirm the depth of the cover layer. These results are provided in Table 3. In all core samples, at least 10 cm of sand layer were observed. At four locations (EW-RM05, EW-RM15, EW-RM19, and EW-RM21) more than 2 cm of material had accumulated on top of the sand cover layer, which resulted in the collection of additional chemistry samples (Figure 2).

Table 3. Depth of cover layer and accumulation in core samples

LOCATION ID	ZONE	SAND LAYER DEPTH (cm)	OVERLYING MATERIAL DEPTH (cm)	SURFACE SEDIMENT GRAB COLLECTED	REASON FOR CHEMISTRY GRAB
EW-RM03	2	23	1	Y	predetermined in RMP
EW-RM05	**2**	**25**	**5**	**Y**	**overlying material ≥ 2 cm**
EW-RM06	2	39	1	Y	predetermined in RMP
EW-RM08	2	25	<1	Y	predetermined in RMP
EW-RM09	2	30	1	N	overlying material < 2 cm
EW-RM10	2	24	1	Y	predetermined in RMP
EW-RM11	2	23	1.5	N	overlying material < 2 cm
EW-RM12	2	30	1	N	overlying material < 2 cm
EW-RM13	2	24	1	N	overlying material < 2 cm
EW-RM14	2	28	1.5	N	overlying material < 2 cm
EW-RM15	**3**	**23**	**2.5**	**Y**	**overlying material ≥ 2 cm**
EW-RM17	2	20	not visible	N	overlying material < 2 cm
EW-RM18	2	38	<1	Y	predetermined in RMP
EW-RM19	**3**	**29**	**2**	**Y**	**overlying material ≥ 2 cm**
EW-RM20	2	34	not visible	Y	predetermined in RMP

EW-RM21	**2**	**36**	**3**	**Y**	**overlying material ≥ 2 cm**
EW-RM22	3	43	1.5	N	overlying material < 2 cm
EW-RM23	2	23	<1	Y	predetermined in RMP
EW-RM26	2	41	4	Y	predetermined in RMP
EW-RM27	2	17	1	N	overlying material < 2 cm
EW-RM28	2	24	<1	Y	predetermined in RMP

RMP – recontamination monitoring plan

Bold and shading indicates locations where chemistry grab samples were subsequently collected because > 2cm of accumulated material was observed on top of the cover material.

4.2 SURFACE SEDIMENT CHEMISTRY RESULTS

Surface sediment grab samples were analyzed for the full suite of SMS chemicals. The data validation, conducted by EcoChem, Inc., is discussed in Section 4.3 and presented in full in Appendix C. Complete data tables and raw laboratory data are presented in Appendices A and D, respectively. Data management protocols, including rules for the treatment of lab replicates and field duplicates as well as summation rules for total PCBs, total polycyclic aromatic hydrocarbons (PAHs) and total DDTs, are presented in Appendix B.

Appendix A presents a summary of chemistry results for the 21 EWW surface sediment samples, including the number of detections, range of detected concentrations, mean of detected concentrations, and range of reporting limits for chemicals reported and non-detects. In addition, the complete data tables containing results for each sample compared to SMS, Dredged Material Management Program (DMMP), or apparent effects threshold (AET) values are presented. DMMP screening level guideline (SL) and DMMP maximum level guideline (ML) were used for 14 chemicals for which there are no available SMS.

All surface sediment samples collected from the EWW were analyzed by ARI for PCBs as Aroclors, pesticides, metals, SVOCs (including PAHs and phthalates), grain size, TOC, and percent solids. The results of the analyses are discussed below by analyte group. Table 4 presents the chemistry results that exceeded SMS. Surface sediment chemistry results represented by sediment quality standards (SQS) or cleanup screening level (CSL) categories for total PCBs, bis(2-ethylhexyl)phthalate (BEHP), and mercury are presented in Figures 3 through 5, respectively.

Table 4. Sample results exceeding SMS criteria

Location ID	Sample ID	Total PCBs (mg/kg OC)		Bis(2-ethylhexyl)-phthalate (mg/kg OC)		1,4-Dichloro-benzene (mg/kg OC)		Phenol (µg/kg dw)		Mercury (mg/kg dw)	
		SQS	CSL	SQS	CSL	SQS	CSL	SQS	CSL	SQS	CSL
		12	65	47	78	3.1	9.0	420	1,200	0.41	0.59
EW-RM01	EW-RM06-1	**32**		16		1.3 J		**630**		0.17	
EW-RM02	EW-RM06-2	4.5		8.8		**7.9**		330		0.06	
EW-RM03	EW-RM06-3	2.8 U		4.6		**5.7**		44		0.05 U	
EW-RM04	EW-RM06-4	**170**		16		0.91 J		**450**		0.15	
EW-RM05	EW-RM06-5	**16**		15		1.7		220		0.13	
EW-RM06	EW-RM06-6	12 J		20		**6.2**		400		0.13	
EW-RM07	EW-RM06-7	**16**		18		1.7		**520**		0.12	
EW-RM10	EW-RM06-10	**23**		30		**3.2**		**470**		**0.67**	
EW-RM15	EW-RM06-15	**100**		**120**		**7.4**		340		**0.78**	
EW-RM16	EW-RM06-16	**16**		16		1.0 J		**560**		0.16	
	EW-RM06-101	**19**		12		1.4		390		0.15	
EW-RM18	EW-RM06-18	3.5 U		3.5 U		**3.5 U**		20 U		0.04 U	
EW-RM19	EW-RM06-19	**30**		14		0.81 J		**480**		0.38	
EW-RM24	EW-RM06-24	**14 J**		26		1.0 J		310		0.28	
EW-RM25	EW-RM06-25	**34**		20		1.7		**590**		0.33	
EW-RM26	EW-RM06-26	**40**		13		**4.0 U**		20 U		0.05 U	

dw – dry weight

Concentration in **bold** indicates SQS exceedance.

Concentration in **bold underline** indicates CSL exceedance.

CSL – cleanup screening level

OC – organic carbon

SQS – sediment quality standards

4.2.1 Conventionals: grain size, TOC, and percent solids

TOC values ranged from 0.35 to 2.3% dry weight. Only one sample, EW-RM06-20, was less than 0.5%. The percent solids ranged from 57.6 to 93.6. Grain size results were consistent with the placement of cover material. In Zone 1, where no cover material was placed, the sediments consisted primarily of fine to medium sand. The percent of fine material (silt + clay) was typically higher in Zone 1 sediments than in Zone 2 or 3 sediments. In Zone 2, where sand cover material was placed, sediments were typically very coarse to medium sand. Finally, in Zone 3, where gravel cover material was placed, the sediments were predominantly gravel.

4.2.2 PCBs as Aroclors and pesticides

Total PCBs exceeded the SQS at 12 locations (Figure 3). At two of those locations, EW-RM04 and EW-RM15, total PCB concentrations also exceeded the CSL. Pesticides were not detected in any of the samples.

4.2.3 SVOCs

No PAH results were above SMS criteria. BEHP was the only phthalate to exceed SMS criteria. At location EW-RM-15, BEHP exceeded both the SQS and CSL with a concentration of 120 mg/kg OC (Figure 4). Phenol exceeded the SQS at seven locations, and 1,4--dichlorobenzene had detected exceedances of the SQS at five locations. No other SVOCs exceeded SMS criteria.

4.2.4 Metals

Mercury was the only metal to exceed SMS criteria. Mercury exceeded both the SQS and CSL at locations EW-RM10 and EW-RM15, with concentrations of 0.67 and 0.78 mg/kg, respectively (Figure 4).

4.3 DATA INTERPRETATION

The results of the cover layer verification sampling indicate that the depth of the cover layer was greater than 10cm at all sampling locations where cover layer thickness was measured. All measured depths exceeded 20cm with the exception of one location where a depth of 17cm was reported (EW-RM-27).

The surface sediment chemistry results were consistent with the deposition of contaminated material on top of the sand cover material resulting in surface sediment chemistry results above SMS values. All locations with sediment chemistry values above the SMS were locations with greater than 2cm of material deposited on top of the cover material with one exception (EW-RM-10). The goal of the recontamination monitoring study was to assess the surface sediment in the removal area. The extent to which contaminated subsurface sediment might be mixed with the cover layer material was not assessed.

Future recontamination monitoring events should focus on identifying areas of deposition and further characterizing the areas which have been observed to be depositional with SMS exceedances. The initial placement of the cover material appears to have been successful and future sampling of the depth of the cover material should focus on areas that were not sampled in the initial sampling event.

4.4 CHEMICAL DATA VALIDATION RESULTS

Independent data validation of all chemical analysis results was conducted by EcoChem. The complete data validation report is provided in Appendix C. The results of the validation are summarized below. Detailed information regarding every qualified sample is available in Appendix C.

The surface sediment samples submitted to ARI were analyzed in one sample delivery group (SDG). EcoChem conducted a full-level data validation on this SDG (IZ26). The data validation included a review of calibration, internal standard, and interference check sample summary forms. The majority of the data did not require qualification, or were qualified with a J, indicating an estimated value. Based on the information reviewed, the overall data quality was considered acceptable for use as qualified. Issues that resulted in the qualification of data are summarized below.

- The percent recovery for antimony in the matrix spike sample was 19.4%. The post-digestion spike recovery was within quality control limits. Antimony was never detected, and all antimony results were UJ-qualified as estimated.
- 2,4-Dinitrophenol, 3-nitroaniline, 4-nitroaniline, benzyl alcohol, and 4,6-dinitro-o-cresol exhibited low responses in continuing calibration verifications (CCVs) These chemicals were not detected in any samples, and all results were UJ-qualified.
- When more than one Aroclor is present in a sample, the potential exists for a high bias from the contribution of one Aroclor to another caused by common peaks or peaks that cannot be completely resolved. Analytical peaks are selected and Aroclor identification is made based on the best resolution possible for that particular sample. Reporting limits for some PCB Aroclors were elevated in six samples because of chromatographic interferences and overlapping Aroclor patterns. Reported Aroclor concentrations were reported based on the individual Aroclors that provided the best match to the observed sample pattern.
- Thirteen samples exhibited an analytical response above standard reporting limits for select pesticides. These tentatively identified results were Y-qualified by the laboratory as non-detect at elevated reporting limits. The Y-qualifier indicates that chromatographic interference from PCB congeners in the sample prevented adequate resolution of the analyte at the standard reporting limits.

5.0 References

Plumb R, Jr. 1981. Procedures for handling and chemical analysis of sediment and water samples. Waterways Experiment Station, US Army Corps of Engineers, Vicksburg, MS.

PSEP. 1986. Recommended protocols for measuring conventional sediment variables in Puget Sound. Prepared for the Puget Sound Estuary Program. US Environmental Protection Agency, Region 10, Seattle, WA.

Windward. 2005. East Waterway Phase 1 removal action: recontamination monitoring plan. Windward Environmental LLC, Seattle, WA.

Figures

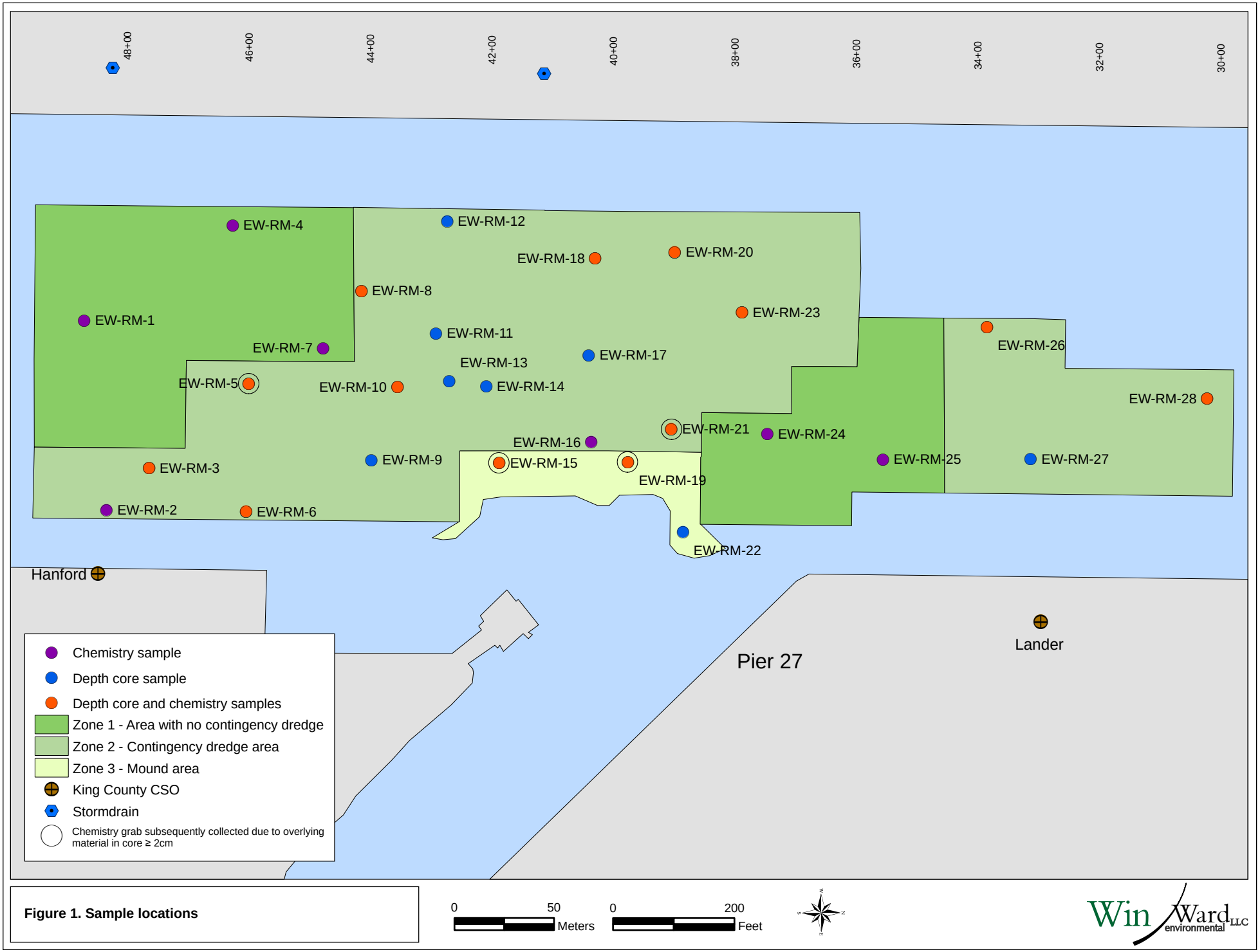

Figure 1. Sample locations

Updated by AMW 09/22/06; Prepared by STS 05/22/06 Map 2331 W:\Projects\00-08-08 East Waterway\Data\GIS\Recontamination

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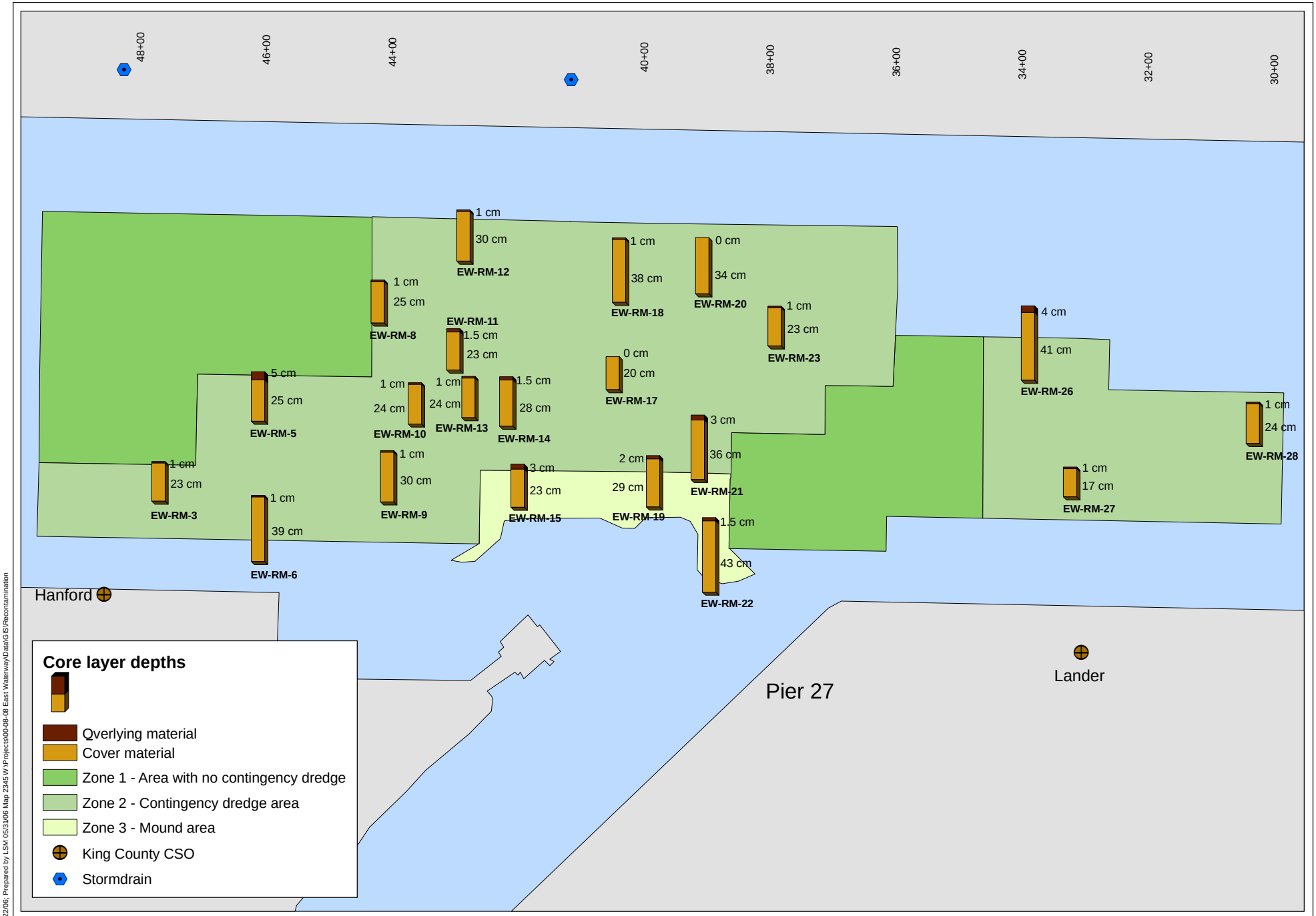

Figure 2. Depth of material in core samples

0 50 Meters 0 200 Feet

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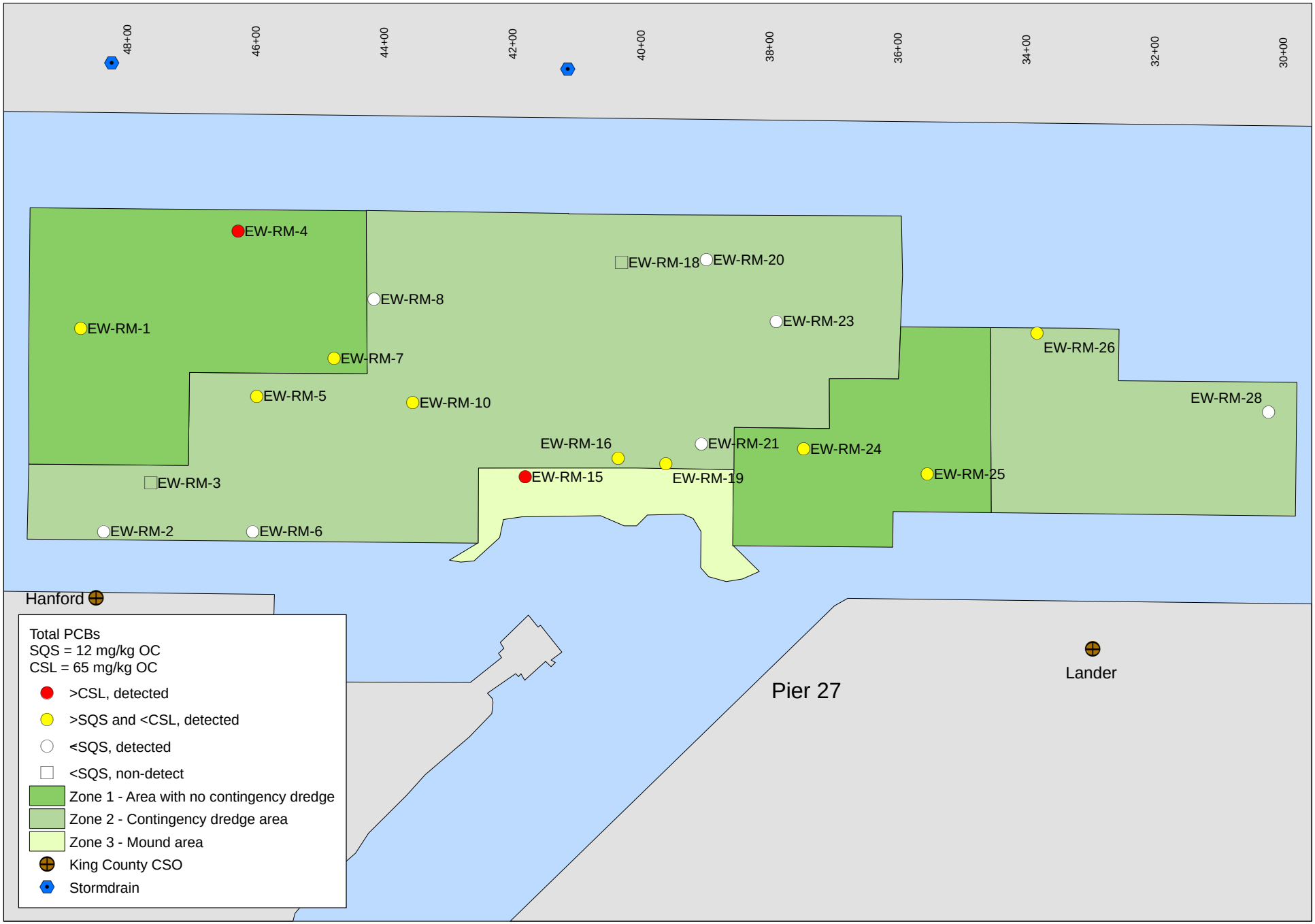

Figure 3. Exceedances of SQS/CSL for total PCBs in East Waterway

PCB normalization conducted for all samples with PCB concentrations greater than 0.2%. For samples with 0.2% TOC or lower or missing PCB concentrations, chemical concentrations were compared to lowest AET (equivalent to SQS) and second lowest AET(equivalent to CSL) in dry weight units.

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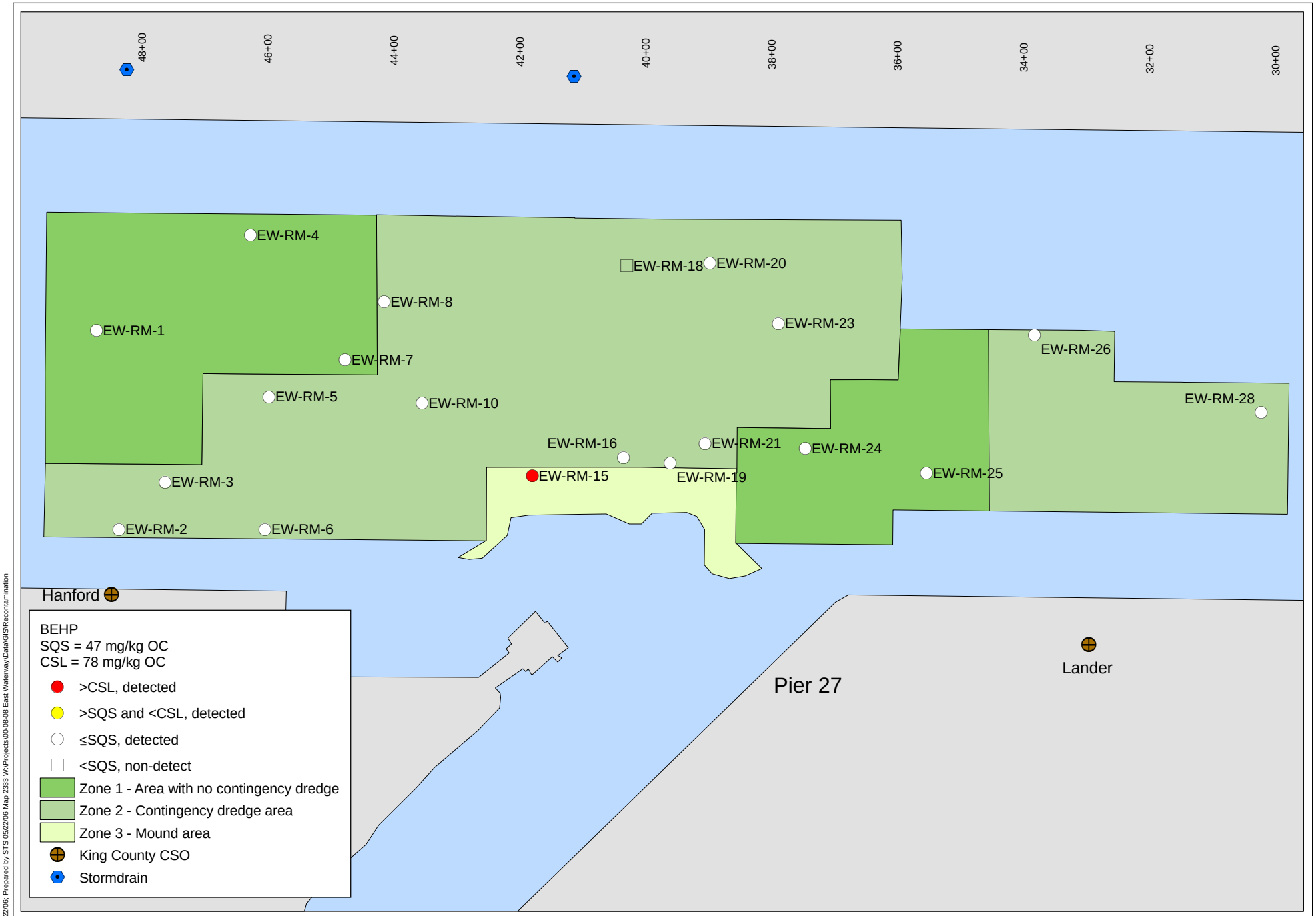

Figure 4. Exceedances of SQS/CSL for BEHP (OC normalized) in East Waterway

TOC normalization conducted for all samples with TOC concentrations greater than 0.2%. For samples with 0.2% TOC or lower or missing TOC concentrations, chemical concentrations were compared to lowest AET (equivalent to SQS) and second lowest AET(equivalent to CSL) in dry weight units.

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Modified by AMW 09/22/06; Prepared by STS 05/22/06 Map 2333 W:\Projects\00-08-08 East Waterway\Data\GIS\Recontamination

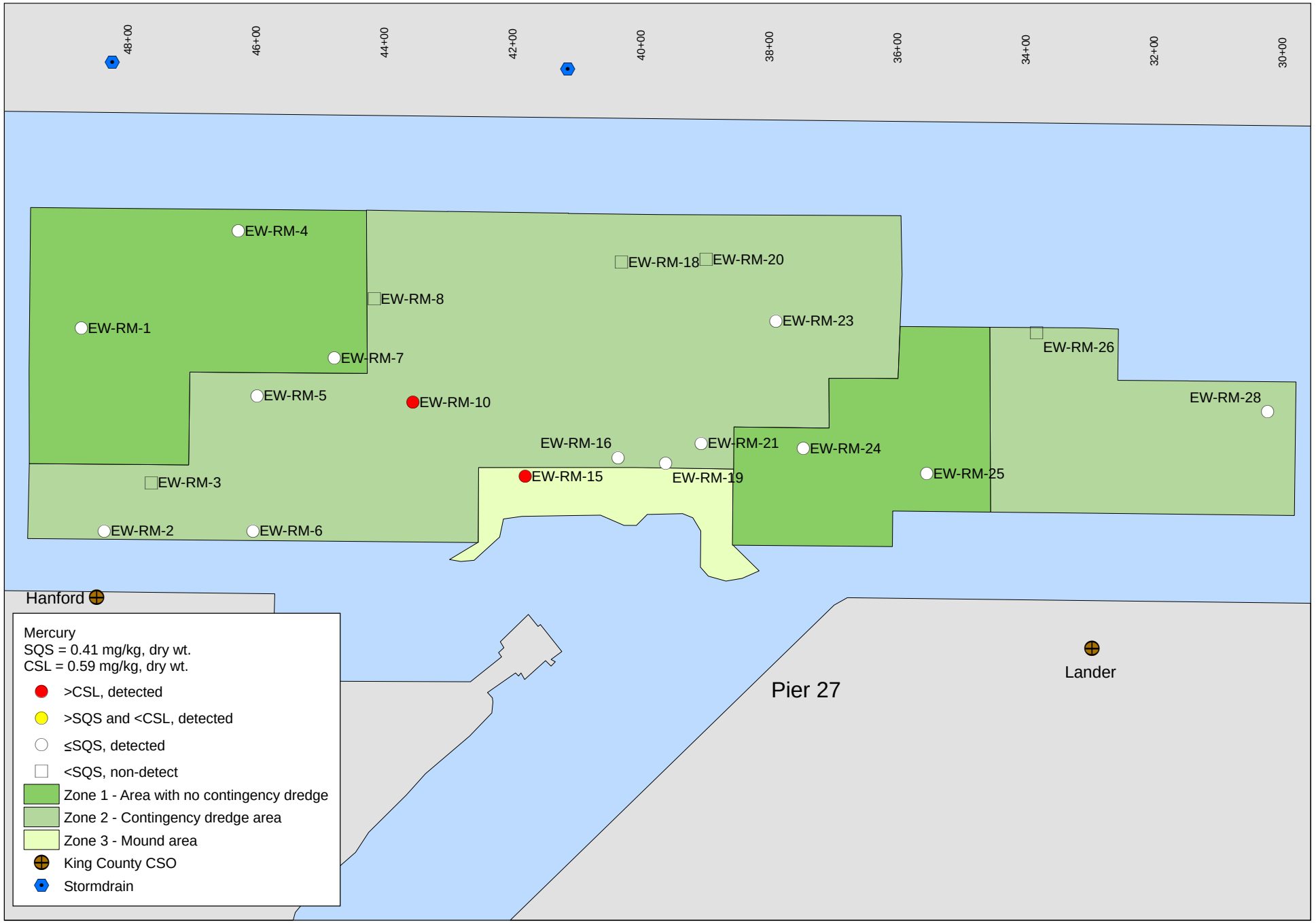

Figure 5. Exceedances of SQS/CSL for Mercury in East Waterway

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APPENDIX A DATA TABLES

Table A-1. Summary of chemistry results for EWW recontamination monitoring 2006 surface sediment samples

Analyte	Unit	Detection Frequency	Detected Concentration			Reporting Limit[a]	
			Minimum	Maximum	Mean[b]	Minimum	Maximum
PCBs							
Aroclor-1016	µg/kg dw	0 / 21	nd	nd	nd	19	510
Aroclor-1221	µg/kg dw	0 / 21	nd	nd	nd	19	340
Aroclor-1232	µg/kg dw	0 / 21	nd	nd	nd	19	780
Aroclor-1242	µg/kg dw	0 / 21	nd	nd	nd	19	540
Aroclor-1248	µg/kg dw	0 / 21	nd	nd	nd	19	680
Aroclor-1254	µg/kg dw	15 / 21	10 J	1,200	160	19	1,500
Aroclor-1260	µg/kg dw	19 / 21	10 J	2,600	330	19	20
Total PCBs (calc'd)	µg/kg dw	19 / 21	20 J	2,600	450	nc	nc
Metals							
Antimony	mg/kg dw	0 / 21	nd	nd	nd	5	8
Arsenic	mg/kg dw	11 / 21	6	11	8	5	7
Cadmium	mg/kg dw	12 / 21	0.3	2.4	0.6	0.2	0.3
Chromium	mg/kg dw	21 / 21	15.7	43.9	22.4	na	na
Copper	mg/kg dw	21 / 21	14.9	78.4	32.5	na	na
Lead	mg/kg dw	21 / 21	3	131	24	na	na
Mercury	mg/kg dw	16 / 21	0.06	0.78	0.25	0.04	0.05
Nickel	mg/kg dw	21 / 21	14	26	20	na	na
Silver	mg/kg dw	2 / 21	0.5	2.2	1	0.3	0.4
Zinc	mg/kg dw	21 / 21	29.9	249	66	na	na
PAHs							
2-Chloronaphthalene	µg/kg dw	0 / 21	nd	nd	nd	19	39
2-Methylnaphthalene	µg/kg dw	8 / 21	18 J	300	57	19	20
Acenaphthene	µg/kg dw	13 / 21	11 J	96	26	20	20
Acenaphthylene	µg/kg dw	13 / 21	14 J	44	21	20	20
Anthracene	µg/kg dw	16 / 21	25	230	81	20	20
Benzo(a)anthracene	µg/kg dw	19 / 21	13 J	360	110	20	20
Benzo(a)pyrene	µg/kg dw	19 / 21	15 J	330	120	20	20
Benzo(b)fluoranthene	µg/kg dw	20 / 21	12 J	420	170	20	20
Benzo(g,h,i)perylene	µg/kg dw	16 / 21	16 J	110	43	20	20
Benzo(k)fluoranthene	µg/kg dw	20 / 21	10 J	410	130	20	20
Total benzofluoranthenes (calc'd)	µg/kg dw	20 / 21	22 J	830	300	nc	nc
Chrysene	µg/kg dw	20 / 21	11 J	520	160	20	20
Dibenzo(a,h)anthracene	µg/kg dw	13 / 21	11 J	30 J	16	20	20
Dibenzofuran	µg/kg dw	8 / 21	17 J	81	29	19	20
Fluoranthene	µg/kg dw	20 / 21	27	920	260	20	20

Table A-1, cont.

Analyte	Unit	Detection Frequency	Detected Concentration			Reporting Limit[a]	
			Minimum	Maximum	Mean[b]	Minimum	Maximum
Fluorene	µg/kg dw	14 / 21	16 J	180	38	20	20
Indeno(1,2,3-cd)pyrene	µg/kg dw	16 / 21	17 J	86	41	20	20
Naphthalene	µg/kg dw	14 / 21	15 J	120	34	20	20
Phenanthrene	µg/kg dw	20 / 21	12 J	380	100	20	20
Pyrene	µg/kg dw	20 / 21	24	1,200	260	20	20
Total HPAH (calc'd)	µg/kg dw	20 / 21	84 J	4,400 J	1,300	nc	nc
Total LPAH (calc'd)	µg/kg dw	20 / 21	12 J	1,050	250	nc	nc
Total PAH (calc'd)	µg/kg dw	20 / 21	103 J	5,400 J	1,500	nc	nc
Phthalates							
Bis(2-ethylhexyl)phthalate	µg/kg dw	20 / 21	23	2,800	310	20	20
Butyl benzyl phthalate	µg/kg dw	4 / 21	14 J	25	20	19	39
Diethyl phthalate	µg/kg dw	0 / 21	nd	nd	nd	19	39
Dimethyl phthalate	µg/kg dw	0 / 21	nd	nd	nd	19	39
Di-n-butyl phthalate	µg/kg dw	4 / 21	13 J	120	46	19	20
Di-n-octyl phthalate	µg/kg dw	0 / 21	nd	nd	nd	19	39
Other SVOCs							
1,2,4-Trichlorobenzene	µg/kg dw	0 / 21	nd	nd	nd	19	39
1,2-Dichlorobenzene	µg/kg dw	0 / 21	nd	nd	nd	19	39
1,3-Dichlorobenzene	µg/kg dw	2 / 21	20 J	28	24	19	20
1,4-Dichlorobenzene	µg/kg dw	15 / 21	13 J	170	38	20	20
2,4,5-Trichlorophenol	µg/kg dw	0 / 21	nd	nd	nd	97	200
2,4,6-Trichlorophenol	µg/kg dw	0 / 21	nd	nd	nd	97	200
2,4-Dichlorophenol	µg/kg dw	0 / 21	nd	nd	nd	97	200
2,4-Dimethylphenol	µg/kg dw	0 / 21	nd	nd	nd	19	39
2,4-Dinitrophenol	µg/kg dw	0 / 21	nd	nd	nd	190	390
2,4-Dinitrotoluene	µg/kg dw	0 / 21	nd	nd	nd	97	200
2,6-Dinitrotoluene	µg/kg dw	0 / 21	nd	nd	nd	97	200
2-Chlorophenol	µg/kg dw	0 / 21	nd	nd	nd	19	39
2-Methylphenol	µg/kg dw	0 / 21	nd	nd	nd	19	39
2-Nitroaniline	µg/kg dw	0 / 21	nd	nd	nd	97	200
2-Nitrophenol	µg/kg dw	0 / 21	nd	nd	nd	97	200
3,3'-Dichlorobenzidine	µg/kg dw	0 / 21	nd	nd	nd	97	200
3-Nitroaniline	µg/kg dw	0 / 21	nd	nd	nd	97	200
4,6-Dinitro-o-cresol	µg/kg dw	0 / 21	nd	nd	nd	190	390
4-Bromophenyl phenyl ether	µg/kg dw	0 / 21	nd	nd	nd	19	39
4-Chloro-3-methylphenol	µg/kg dw	0 / 21	nd	nd	nd	97	200
4-Chloroaniline	µg/kg dw	0 / 21	nd	nd	nd	97	200
4-Chlorophenyl phenyl ether	µg/kg dw	0 / 21	nd	nd	nd	19	39
4-Methylphenol	µg/kg dw	17 / 21	16 J	200	81	20	20
4-Nitroaniline	µg/kg dw	0 / 21	nd	nd	nd	97	200

Table A-1, cont.

Analyte	Unit	Detection Frequency	Detected Concentration			Reporting Limit[a]	
			Minimum	Maximum	Mean[b]	Minimum	Maximum
4-Nitrophenol	µg/kg dw	0 / 21	nd	nd	nd	97	200
Benzoic acid	µg/kg dw	0 / 21	nd	nd	nd	190	390
Benzyl alcohol	µg/kg dw	0 / 21	nd	nd	nd	19	39
bis(2-chloroethoxy)methane	µg/kg dw	0 / 21	nd	nd	nd	19	39
bis(2-chloroethyl)ether	µg/kg dw	0 / 21	nd	nd	nd	19	39
bis(2-chloroisopropyl)ether	µg/kg dw	0 / 21	nd	nd	nd	19	39
Carbazole	µg/kg dw	12 / 21	16 J	28	22	20	39
Hexachlorobenzene	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
Hexachlorobutadiene	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
Hexachlorocyclopentadiene	µg/kg dw	0 / 21	nd	nd	nd	97	200
Hexachloroethane	µg/kg dw	0 / 21	nd	nd	nd	19	39
Isophorone	µg/kg dw	0 / 21	nd	nd	nd	19	39
Nitrobenzene	µg/kg dw	0 / 21	nd	nd	nd	19	39
N-Nitroso-di-n-propylamine	µg/kg dw	0 / 21	nd	nd	nd	97	200
N-Nitrosodiphenylamine	µg/kg dw	0 / 21	nd	nd	nd	19	39
Pentachlorophenol	µg/kg dw	0 / 21	nd	nd	nd	97	200
Phenol	µg/kg dw	17 / 21	36	630	380	20	20
Pesticides							
2,4'-DDD	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
2,4'-DDE	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
2,4'-DDT	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
4,4'-DDD	µg/kg dw	0 / 21	nd	nd	nd	1.9	61
4,4'-DDE	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
4,4'-DDT	µg/kg dw	0 / 21	nd	nd	nd	1.9	270
Total DDTs (calc'd)	µg/kg dw	0 / 21	nd	nd	nd	nc	nc
Aldrin	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
Dieldrin	µg/kg dw	0 / 21	nd	nd	nd	1.9	110
Total aldrin/dieldrin (calc'd)	µg/kg dw	0 / 21	nd	nd	nd	nc	nc
alpha-BHC	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
beta-BHC	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
delta-BHC	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
gamma-BHC	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
alpha-Chlordane	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
gamma-Chlordane	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
Total Chlordane (calc'd)	µg/kg dw	0 / 21	nd	nd	nd	nc	nc
alpha-Endosulfan	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
beta-Endosulfan	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
Endosulfan sulfate	µg/kg dw	0 / 21	nd	nd	nd	1.9	62
Endrin	µg/kg dw	0 / 21	nd	nd	nd	1.9	94
Endrin aldehyde	µg/kg dw	0 / 21	nd	nd	nd	1.9	34

Table A-1, cont.

Analyte	Unit	Detection Frequency	Detected Concentration			Reporting Limit[a]	
			Minimum	Maximum	Mean[b]	Minimum	Maximum
Endrin ketone	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
Heptachlor	µg/kg dw	0 / 21	nd	nd	nd	0.95	17
Heptachlor epoxide	µg/kg dw	0 / 21	nd	nd	nd	0.95	66
Methoxychlor	µg/kg dw	0 / 21	nd	nd	nd	9.5	170
Mirex	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
Cis-Nonachlor	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
Oxychlordane	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
Toxaphene	µg/kg dw	0 / 21	nd	nd	nd	95	1,700
Trans-Nonachlor	µg/kg dw	0 / 21	nd	nd	nd	1.9	34
Grain size							
Total Gravel	% dw	21 / 21	0.1	52.5	20	na	na
Total sand (calc'd)	% dw	21 / 21	29.1	78.1	63	na	na
Total silt (calc'd)	% dw	20 / 21	1.5	44.8	15	na	na
Total clay (calc'd)	% dw	20 / 21	1.5	16.9	6.4	na	na
Fines (percent silt + clay)	% dw	20 / 21	3.0	61.7	21	na	na
Conventional parameters							
Total organic carbon (TOC)	% dw	21 / 21	0.351	2.30	1.22	na	na
Total solids	% ww	21 / 21	57.6	93.6	73.4	na	na

[a] RL range for non-detect samples

[b] Reported mean concentrations are the average of the detected concentrations only; RLs were not included in the mean concentration calculation

dw – dry weight

na – not applicable

nc – not calculated

nd – not detected

J – estimated value

Table A-2a. Concentrations of analytes in recontamination monitoring sediment samples: EW-RM06-1 through EW-RM06-15

Analyte	Unit	EW-RM-1	EW-RM-2	EW-RM-3	EW-RM-4	EW-RM-5	EW-RM-6	EW-RM-7	EW-RM-8	EW-RM-10	EW-RM-15
		EW-RM06-1	EW-RM06-2	EW-RM06-3	EW-RM06-4	EW-RM06-5	EW-RM06-6	EW-RM06-7	EW-RM06-8	EW-RM06-10	EW-RM06-15
Metals and trace elements											
Antimony	mg/kg dw	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	7 UJ	7 UJ	6 UJ	7 UJ	8 UJ
Arsenic	mg/kg dw	7 U	6 U	6 U	7 U	7 U	7 U	7 U	6 U	8	11
Cadmium	mg/kg dw	0.5	0.2 U	0.2 U	0.4	0.3 U	0.4	0.3	0.2 U	0.3	2.4
Chromium	mg/kg dw	22.0	22.8	24.1	19.9	20.7	18.6	21.1	17.7	22.7	43.9
Copper	mg/kg dw	38.7	26.5	17.1	34.8	33.2	33.4	33.8	17.3	42.4	78.4
Lead	mg/kg dw	27	10	5	23	17	19	22	6	23	131
Mercury	mg/kg dw	0.17	0.06	0.05 U	0.15	0.13	0.13	0.12	0.05 U	0.67	0.78
Nickel	mg/kg dw	14	25	19	16	18	18	16	19	21	26
Silver	mg/kg dw	0.4 U	0.3 U	0.3 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	2.2
Zinc	mg/kg dw	68.7	48.7	36.6	62.3	52.7	58.1	60	36.3	66.4	249
PAHs											
2-Chloronaphthalene	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	39 U
2-Methylnaphthalene	µg/kg dw	20	20 U	20 U	19 J	20 U	18 J	20 U	20 U	19 J	300
Acenaphthene	µg/kg dw	16 J	20 U	20 U	12 J	11 J	25	19 J	20 U	18 J	96
Acenaphthylene	µg/kg dw	18 J	20 U	20 U	20	18 J	18 J	14 J	20 U	20	44
Anthracene	µg/kg dw	70	25	20 U	69	64	83	86	20 U	86	230
Benzo(a)anthracene	µg/kg dw	120	39	15 J	120	110	120	110	17 J	150	360
Benzo(a)pyrene	µg/kg dw	140	45	15 J	140	120	130	130	16 J	180	330
Benzo(b)fluoranthene	µg/kg dw	190	62	24	260	180	220	200	27	290	420
Benzo(g,h,i)perylene	µg/kg dw	50	19 J	20 U	42	34	44	34	20 U	48	110
Benzo(k)fluoranthene	µg/kg dw	140	46	21	160	160	160	150	19 J	190	410
Total Benzofluoranthenes (calc'd)	µg/kg dw	330	108	45	420	340	380	350	46 J	480	830
Chrysene	µg/kg dw	180	64	21	170	170	180	160	24	230	520
Dibenzo(a,h)anthracene	µg/kg dw	20	20 U	20 U	15 J	12 J	16 J	14 J	20 U	19 J	30 J
Dibenzofuran	µg/kg dw	20 U	20 U	20 U	20 U	20 U	24	17 J	20 U	17 J	81
Fluoranthene	µg/kg dw	300	88	34	280	230	320	270	33	310	920
Fluorene	µg/kg dw	20	20 U	20 U	18 J	17 J	35	27	20 U	25	180

Table A-2a, cont.

Analyte	Unit	EW-RM-1	EW-RM-2	EW-RM-3	EW-RM-4	EW-RM-5	EW-RM-6	EW-RM-7	EW-RM-8	EW-RM-10	EW-RM-15
		EW-RM06-1	EW-RM06-2	EW-RM06-3	EW-RM06-4	EW-RM06-5	EW-RM06-6	EW-RM06-7	EW-RM06-8	EW-RM06-10	EW-RM06-15
Indeno(1,2,3-cd)pyrene	µg/kg dw	50	18 J	20 U	44	35	41	34	20 U	49	86
Naphthalene	µg/kg dw	24	20 U	20 U	22	19 J	47	21	20 U	30	120
Phenanthrene	µg/kg dw	110	32	15 J	98	77	120	100	15 J	120	380
Pyrene	µg/kg dw	220	60	36	340	250	310	240	34	310	1,200
Total HPAH (calc'd)	µg/kg dw	1,410	441 J	166 J	1,570 J	1,300 J	1,540 J	1,340 J	170 J	1,780 J	4,400 J
Total LPAH (calc'd)	µg/kg dw	260 J	57	15 J	239 J	206 J	330 J	270 J	15 J	300 J	1,050
Carcinogenic PAHs	µg/kg dw	200	62 J	31 J	210 J	180 J	190 J	190 J	23 J	260 J	470 J
Total PAH (calc'd)	µg/kg dw	1,670 J	498 J	181 J	1,810 J	1,510 J	1,870 J	1,610 J	185 J	2,080 J	5,400 J
Phthalates											
Bis(2-ethylhexyl)phthalate	µg/kg dw	220	76	31	250	200	260	240	74	260	2,800
Butyl benzyl phthalate	µg/kg dw	20 U	20 U	20 U	20 U	14 J	18 J	22	20 U	25	39 U
Diethyl phthalate	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	39 U
Dimethyl phthalate	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	39 U
Di-n-butyl phthalate	µg/kg dw	20 U	20 U	20 U	13 J	20 U	38	20 U	20 U	20 U	120
Di-n-octyl phthalate	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	39 U
Other SVOCs											
1,2,4-Trichlorobenzene	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	39 U
1,2-Dichlorobenzene	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	39 U
1,3-Dichlorobenzene	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	28	20 J
1,4-Dichlorobenzene	µg/kg dw	18 J	68	39	14 J	22	82	22	20 U	28	170
2,4,5-Trichlorophenol	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
2,4,6-Trichlorophenol	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
2,4-Dichlorophenol	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
2,4-Dimethylphenol	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	39 U
2,4-Dinitrophenol	µg/kg dw	200 UJ	200 UJ	200 UJ	200 UJ	200 UJ	190 UJ	200 UJ	200 UJ	200 UJ	390 UJ
2,4-Dinitrotoluene	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
2,6-Dinitrotoluene	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
2-Chlorophenol	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	39 U
2-Methylphenol	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	39 U
2-Nitroaniline	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
2-Nitrophenol	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
3,3'-Dichlorobenzidine	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U

Table A-2a, cont.

Analyte	Unit	EW-RM-1	EW-RM-2	EW-RM-3	EW-RM-4	EW-RM-5	EW-RM-6	EW-RM-7	EW-RM-8	EW-RM-10	EW-RM-15
		EW-RM06-1	EW-RM06-2	EW-RM06-3	EW-RM06-4	EW-RM06-5	EW-RM06-6	EW-RM06-7	EW-RM06-8	EW-RM06-10	EW-RM06-15
3-Nitroaniline	µg/kg dw	98 UJ	99 UJ	97 UJ	100 UJ	98 UJ	97 UJ	97 U	100 U	98 U	200 U
4,6-Dinitro-o-cresol	µg/kg dw	200 U	200 U	200 U	200 U	200 U	190 U	200 UJ	200 UJ	200 UJ	390 UJ
4-Bromophenyl phenyl ether	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	39 U
4-Chloro-3-methylphenol	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
4-Chloroaniline	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
4-Chlorophenyl phenyl ether	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	39 U
4-Methylphenol	µg/kg dw	56	51	33	55	33	170	99	20 U	100	100
4-Nitroaniline	µg/kg dw	98 UJ	99 UJ	97 UJ	100 UJ	98 UJ	97 UJ	97 U	100 U	98 U	200 U
4-Nitrophenol	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
Benzoic acid	µg/kg dw	200 U	200 U	200 U	200 U	200 U	190 U	200 U	200 U	200 U	390 U
Benzyl alcohol	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 UJ	20 UJ	20 UJ	39 UJ
bis(2-chloroethoxy)methane	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	39 U
bis(2-chloroethyl)ether	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	39 U
bis(2-chloroisopropyl)ether	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	39 U
Carbazole	µg/kg dw	21	20 U	20 U	18 J	16 J	22	27	20 U	24	39 U
Hexachlorobenzene	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
Hexachlorobutadiene	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
Hexachlorocyclopentadiene	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
Hexachloroethane	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	39 U
Isophorone	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	39 U
Nitrobenzene	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	39 U
N-Nitroso-di-n-propylamine	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
N-Nitrosodiphenylamine	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	39 U
Pentachlorophenol	µg/kg dw	98 U	99 U	97 U	100 U	98 U	97 U	97 U	100 U	98 U	200 U
Phenol	µg/kg dw	630	330	44	450	220	400	520	20 U	470	340
PCBs											
Aroclor-1016	µg/kg dw	29 U	20 U	19 U	56 U	54 U	270 U	19 U	19 U	28 U	510 U
Aroclor-1221	µg/kg dw	29 U	20 U	19 U	56 U	54 U	270 U	19 U	19 U	28 U	340 U
Aroclor-1232	µg/kg dw	31 U	20 U	19 U	56 U	54 U	270 U	19 U	19 U	28 U	780 U
Aroclor-1242	µg/kg dw	29 U	20 U	19 U	56 U	54 U	270 U	19 U	19 U	28 U	540 U
Aroclor-1248	µg/kg dw	44 U	20 U	19 U	89 U	54 U	270 U	29 U	19 U	28 U	680 U
Aroclor-1254	µg/kg dw	160	20 U	19 U	1,500 U	94	270 U	88	10 J	78	1,200

Table A-2a, cont.

Analyte	Unit	EW-RM-1	EW-RM-2	EW-RM-3	EW-RM-4	EW-RM-5	EW-RM-6	EW-RM-7	EW-RM-8	EW-RM-10	EW-RM-15
		EW-RM06-1	EW-RM06-2	EW-RM06-3	EW-RM06-4	EW-RM06-5	EW-RM06-6	EW-RM06-7	EW-RM06-8	EW-RM06-10	EW-RM06-15
Aroclor-1260	µg/kg dw	280	39	19 U	2,600	120	160 J	120	10 J	120	1,200
Total PCBs (calc'd)	µg/kg dw	440	39	19 U	2,600	210	160 J	210	20 J	200	2,400
Pesticides											
2,4'-DDD	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
2,4'-DDE	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
2,4'-DDT	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
4,4'-DDD	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	61 U
4,4'-DDE	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
4,4'-DDT	µg/kg dw	29 U	2.0 U	1.9 U	24 U	38 U	27 U	17 U	2.0 U	20 U	270 U
Total DDTs (calc'd)	µg/kg dw	29 U	2.0 U	1.9 U	24 U	38 U	27 U	17 U	2.0 U	20 U	270 U
Aldrin	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
Dieldrin	µg/kg dw	7.7 U	2.0 U	1.9 U	5.6 U	9.8 U	27 U	5.6 U	2.0 U	5.5 U	110 U
Total aldrin/dieldrin (calc'd)	µg/kg dw	7.7 U	2.0 U	1.9 U	5.6 U	9.8 U	27 U	5.6 U	2.0 U	5.5 U	110 U
alpha-BHC	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
beta-BHC	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
delta-BHC	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
gamma-BHC	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
alpha-Chlordane	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
gamma-Chlordane	µg/kg dw	6.3 U	0.98 U	0.95 U	5.3 U	2.7 U	13 U	3.9 U	1.0 U	4.4 U	17 U
alpha-Endosulfan	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
beta-Endosulfan	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
Endosulfan sulfate	µg/kg dw	9.6 U	2.0 U	1.9 U	8.2 U	11 U	27 U	5.4 U	2.0 U	7.9 U	62 U
Endrin	µg/kg dw	8.7 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	6.6 U	2.0 U	7.7 U	94 U
Endrin aldehyde	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
Endrin ketone	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
Heptachlor	µg/kg dw	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	13 U	0.97 U	1.0 U	1.4 U	17 U
Heptachlor epoxide	µg/kg dw	6.4 U	0.98 U	0.95 U	6.5 U	2.7 U	13 U	4.0 U	1.0 U	4.6 U	66 U
Methoxychlor	µg/kg dw	15 U	9.8 U	9.5 U	28 U	27 U	130 U	9.7 U	10 U	14 U	170 U
Mirex	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
Cis-Nonachlor	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
Oxychlordane	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
Toxaphene	µg/kg dw	150 U	98 U	95 U	280 U	270 U	1,300 U	97 U	100 U	140 U	1,700 U

Table A-2a, cont.

Analyte	Unit	EW-RM-1	EW-RM-2	EW-RM-3	EW-RM-4	EW-RM-5	EW-RM-6	EW-RM-7	EW-RM-8	EW-RM-10	EW-RM-15
		EW-RM06-1	EW-RM06-2	EW-RM06-3	EW-RM06-4	EW-RM06-5	EW-RM06-6	EW-RM06-7	EW-RM06-8	EW-RM06-10	EW-RM06-15
Trans-Nonachlor	µg/kg dw	2.9 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	1.9 U	2.0 U	2.9 U	34 U
Total Chlordane (calc'd)	µg/kg dw	6.3 U	2.0 U	1.9 U	5.6 U	5.3 U	27 U	3.9 U	2.0 U	4.4 U	34 U
Grain size											
Gravel	% dw	0.1	27.4	21.5	0.1	*2.5*	9.9	1.2	18.8	3.0	45.2
Very coarse sand	% dw	1.6	23.6	31.3	0.6	*7.1*	13.0	4.2	22.9	5.3	3.7
Coarse sand	% dw	2.6	21.0	27.1	5.9	*17.1*	19.5	12.1	28.2	13.5	4.7
Medium sand	% dw	11.5	11.8	12.6	25.9	*22.9*	16.2	23.4	19.5	21.8	6.3
Fine sand	% dw	30.4	5.2	2.6	29.9	*20.6*	11.3	25.7	4.8	17.8	8.3
Very fine sand	% dw	18.4	3.0	0.8	13.5	*10.4*	8.3	11.0	1.0	11.5	6.1
Coarse silt	% dw	10.1	1.6	0.1 U	6.0	*5.2*	4.6	5.0	0.5	6.6	3.1
Medium silt	% dw	8.1	1.5	0.6	3.9	*3.9*	4.7	4.8	0.7	5.3	8.4
Fine silt	% dw	5.3	1.2	0.5	3.4	*2.7*	3.6	3.2	0.8	4.1	5.6
Very fine silt	% dw	3.3	0.9	0.6	2.8	*2.1*	2.2	2.6	0.7	3.2	2.2
Clay (phi 8-9)	% dw	2.5	0.8	0.6	2.1	*1.6*	2.0	2.2	0.6	2.4	1.8
Clay (phi 9-10)	% dw	1.6	0.5	0.4	1.6	*1.3*	1.7	1.8	0.4	1.9	1.3
Clay (phi 10+)	% dw	4.3	1.2	1.3	4.4	*2.9*	3.1	2.9	1.0	3.7	3.2
Total Gravel	% dw	0.1	27.4	21.5	0.1	*2.5*	9.9	1.2	18.8	3.0	45.2
Total Sand (calc'd)	% dw	64.5	64.6	74.4	75.8	*78.1*	68.3	76.4	76.4	69.9	29.1
Total Silt (calc'd)	% dw	26.8	5.2	1.7	16.1	*13.9*	15.1	15.6	2.7	19.2	19.3
Total Clay (calc'd)	% dw	8.4	2.5	2.3	8.1	*5.8*	6.8	6.9	2.0	8.0	6.3
Fines (percent silt+clay)	% dw	35.2	7.7	4.0	24.2	*19.7*	21.9	22.5	4.7	27.2	25.6
Conventional parameters											
Total organic carbon (TOC)	% dw	1.36	0.863	0.679	1.54	1.31	1.32	1.30	0.880	0.876	2.30
Total solids	% ww	66.70	83.80	85.30	68.10	69.90	71.00	67.40	83.60	66.10	58.30

dw – dry weight

ww – wet weight

na – not analyzed

Concentration in *italics* indicates that laboratory replicate was run for sample. Value reported was based on averaging rules in Appendix B

Table A-2b. Concentrations of analytes in recontamination monitoring sediment samples: EW-RM06-16 through EW-RM06-28

Analyte	Unit	EW-RM-16		EW-RM-18	EW-RM-19	EW-RM-20	EW-RM-21	EW-RM-23	EW-RM-24	EW-RM-25	EW-RM-26	EW-RM-28
		EW-RM06-16	EW-RM06-101	EW-RM06-18	EW-RM06-19	EW-RM06-20	EW-RM06-21	EW-RM06-23	EW-RM06-24	EW-RM06-25	EW-RM06-26	EW-RM06-28
Metals and trace elements												
Antimony	mg/kg dw	7 UJ	7 UJ	5 UJ	7 UJ	5 UJ	*7 UJ*	7 UJ	*7 UJ*	8 UJ	6 UJ	6 UJ
Arsenic	mg/kg dw	8	7	5 U	7	6	*8*	8	*7*	11	6 U	6
Cadmium	mg/kg dw	0.4	0.4	0.2 U	0.5	0.2 U	*0.4*	0.3 U	*0.6*	0.7	0.2 U	0.2 U
Chromium	mg/kg dw	23.5	22.0	18.1	22.4	15.7	*21.1*	23.6	*20.7*	30.1	19.9	20.6
Copper	mg/kg dw	33.2	39.2	14.9	35.3	17.2	*35.0*	30.3	*30.2*	49.1	19.1	22.5
Lead	mg/kg dw	26	25	3	34	5	*22*	16	*27*	39	8	11
Mercury	mg/kg dw	0.16	0.15	0.04 U	0.38	0.05 U	*0.17*	0.21	*0.28*	0.33	0.05 U	0.08
Nickel	mg/kg dw	21	19	17	20	18	*18*	25	*17*	22	22	20
Silver	mg/kg dw	0.4 U	0.4 U	0.3 U	0.4 U	0.3 U	*0.4 U*	0.4 U	*0.4 U*	0.5	0.3 U	0.4 U
Zinc	mg/kg dw	70.3	74.8	29.9	74.8	33.4	*66.6*	54.3	*70.1*	95	38.4	41.9
PAHs												
2-Chloronaphthalene	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
2-Methylnaphthalene	µg/kg dw	20 U	20 U	20 U	19 J	20 U	19 U	20 U	33	29	20 U	20 U
Acenaphthene	µg/kg dw	32	27	20 U	17 J	20 U	13 J	20 U	27	30	20 U	20 U
Acenaphthylene	µg/kg dw	23	15 J	20 U	17 J	20 U	17 J	20 U	22	31	20 U	20 U
Anthracene	µg/kg dw	90	66	20 U	90	20 U	75	36	80	110	20 U	30
Benzo(a)anthracene	µg/kg dw	140	100	20 U	130	20 U	140	55	130	180	13 J	42
Benzo(a)pyrene	µg/kg dw	170	120	20 U	140	20 U	160	52	130	190	15 J	49
Benzo(b)fluoranthene	µg/kg dw	230	190	20 U	240	12 J	230	76	210	320	23	72
Benzo(g,h,i)perylene	µg/kg dw	45	34	20 U	43	20 U	37	17 J	42	66	20 U	16 J
Benzo(k)fluoranthene	µg/kg dw	180	120	20 U	150	10 J	170	47	140	220	14 J	53
Total Benzofluoranthenes (calc'd)	µg/kg dw	410	310	20 U	390	22 J	400	123	350	540	37 J	125
Chrysene	µg/kg dw	220	160	20 U	190	11 J	210	80	170	260	17 J	67
Dibenzo(a,h)anthracene	µg/kg dw	17 J	13 J	20 U	11 J	20 U	12 J	20 U	13 J	21	20 U	20 U
Dibenzofuran	µg/kg dw	24	19 J	20 U	20 U	20 U	19 U	20 U	23	25	20 U	20 U
Fluoranthene	µg/kg dw	370	300	20 U	340	27	290	120	380	510	32	94
Fluorene	µg/kg dw	30	24	20 U	29	20 U	23	16 J	36	48	20 U	20 U

Table A-2b, cont.

Analyte	Unit	EW-RM-16		EW-RM-18	EW-RM-19	EW-RM-20	EW-RM-21	EW-RM-23	EW-RM-24	EW-RM-25	EW-RM-26	EW-RM-28
		EW-RM06-16	EW-RM06-101	EW-RM06-18	EW-RM06-19	EW-RM06-20	EW-RM06-21	EW-RM06-23	EW-RM06-24	EW-RM06-25	EW-RM06-26	EW-RM06-28
Indeno(1,2,3-cd)pyrene	µg/kg dw	49	35	20 U	42	20 U	39	17 J	40	61	20 U	17 J
Naphthalene	µg/kg dw	34	25	20 U	29	20 U	21	15 J	30	40	20 U	20 U
Phenanthrene	µg/kg dw	130	92	20 U	130	19 J	110	56	150	190	12 J	37
Pyrene	µg/kg dw	220	190	20 U	330	24	250	160	340	530	39	83
Total HPAH (calc'd)	µg/kg dw	1,640 J	1,260 J	20 U	1,620 J	84 J	1,540 J	620 J	1,600 J	2,360	153 J	493 J
Total LPAH (calc'd)	µg/kg dw	340	249 J	20 U	310 J	19 J	260 J	123 J	350	450	12 J	67
Carcinogenic PAHs	µg/kg dw	240 J	170 J	0 U	200 J	2 J	220 J	80 J	190 J	280	30 J	76 J
Total PAH (calc'd)	µg/kg dw	1,980 J	1,510 J	20 U	1,930 J	103 J	1,800 J	750 J	1,940 J	2,810	165 J	560 J
Phthalates												
Bis(2-ethylhexyl)phthalate	µg/kg dw	230	210	20 U	220	23	270	33	380	270	66	76
Butyl benzyl phthalate	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
Diethyl phthalate	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
Dimethyl phthalate	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
Di-n-butyl phthalate	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	14 J	20 U	20 U	20 U
Di-n-octyl phthalate	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
Other SVOCs												
1,2,4-Trichlorobenzene	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
1,2-Dichlorobenzene	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
1,3-Dichlorobenzene	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
1,4-Dichlorobenzene	µg/kg dw	15 J	24	20 U	13 J	20 U	17 J	20 U	15 J	23	20 U	20 U
2,4,5-Trichlorophenol	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
2,4,6-Trichlorophenol	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
2,4-Dichlorophenol	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
2,4-Dimethylphenol	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
2,4-Dinitrophenol	µg/kg dw	200 UJ	200 UJ	200 UJ	200 UJ	200 UJ	190 UJ	200 UJ	200 UJ	200 UJ	200 UJ	200 UJ
2,4-Dinitrotoluene	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
2,6-Dinitrotoluene	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
2-Chlorophenol	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
2-Methylphenol	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
2-Nitroaniline	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
2-Nitrophenol	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
3,3'-Dichlorobenzidine	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U

Table A-2b, cont.

Analyte	Unit	EW-RM-16		EW-RM-18	EW-RM-19	EW-RM-20	EW-RM-21	EW-RM-23	EW-RM-24	EW-RM-25	EW-RM-26	EW-RM-28
		EW-RM06-16	EW-RM06-101	EW-RM06-18	EW-RM06-19	EW-RM06-20	EW-RM06-21	EW-RM06-23	EW-RM06-24	EW-RM06-25	EW-RM06-26	EW-RM06-28
3-Nitroaniline	µg/kg dw	100 UJ	98 UJ	100 U	98 U	98 U	97 U	100 U	99 UJ	99 UJ	98 U	98 U
4,6-Dinitro-o-cresol	µg/kg dw	200 U	200 U	200 UJ	200 UJ	200 UJ	190 UJ	200 UJ	200 U	200 U	200 UJ	200 UJ
4-Bromophenyl phenyl ether	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
4-Chloro-3-methylphenol	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
4-Chloroaniline	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
4-Chlorophenyl phenyl ether	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
4-Methylphenol	µg/kg dw	120	80	20 U	200	20 U	120	16 J	24	57	20 U	61
4-Nitroaniline	µg/kg dw	100 UJ	98 UJ	100 U	98 U	98 U	97 U	100 U	99 UJ	99 UJ	98 U	98 U
4-Nitrophenol	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
Benzoic acid	µg/kg dw	200 U	200 U	200 U	200 U	200 U	190 U	200 U	200 U	200 U	200 U	200 U
Benzyl alcohol	µg/kg dw	20 U	20 U	20 UJ	20 UJ	20 UJ	19 UJ	20 UJ	20 U	20 U	20 UJ	20 UJ
bis(2-chloroethoxy)methane	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
bis(2-chloroethyl)ether	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
bis(2-chloroisopropyl)ether	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
Carbazole	µg/kg dw	24	22	20 U	23	20 U	23	20 U	20	28	20 U	20 U
Hexachlorobenzene	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
Hexachlorobutadiene	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
Hexachlorocyclopentadiene	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
Hexachloroethane	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
Isophorone	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
Nitrobenzene	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
N-Nitroso-di-n-propylamine	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
N-Nitrosodiphenylamine	µg/kg dw	20 U	20 U	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U	20 U
Pentachlorophenol	µg/kg dw	100 U	98 U	100 U	98 U	98 U	97 U	100 U	99 U	99 U	98 U	98 U
Phenol	µg/kg dw	560	390	20 U	480	20 U	330	36	310	590	20 U	290
PCBs												
Aroclor-1016	µg/kg dw	28 U	55 U	20 U	19 U	20 U	91 U	20 U	290 U	68 U	20 U	19 U
Aroclor-1221	µg/kg dw	28 U	55 U	20 U	19 U	20 U	91 U	20 U	290 U	68 U	20 U	19 U
Aroclor-1232	µg/kg dw	28 U	55 U	20 U	19 U	20 U	91 U	20 U	290 U	68 U	20 U	19 U
Aroclor-1242	µg/kg dw	28 U	55 U	20 U	19 U	20 U	91 U	20 U	290 U	68 U	20 U	19 U
Aroclor-1248	µg/kg dw	33 U	55 U	20 U	29 U	20 U	91 U	20 U	290 U	68 U	20 U	19 U
Aroclor-1254	µg/kg dw	100	100	20 U	130	20 J	83 J	36	290 U	190	56	35

Table A-2b, cont.

Analyte	Unit	EW-RM-16		EW-RM-18	EW-RM-19	EW-RM-20	EW-RM-21	EW-RM-23	EW-RM-24	EW-RM-25	EW-RM-26	EW-RM-28
		EW-RM06-16	EW-RM06-101	EW-RM06-18	EW-RM06-19	EW-RM06-20	EW-RM06-21	EW-RM06-23	EW-RM06-24	EW-RM06-25	EW-RM06-26	EW-RM06-28
Aroclor-1260	µg/kg dw	130	230	20 U	350	25	120	59	210 J	260	140	44
Total PCBs (calc'd)	µg/kg dw	230	330	20 U	480	45 J	200 J	95	210 J	450	200	79
Pesticides												
2,4'-DDD	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
2,4'-DDE	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
2,4'-DDT	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
4,4'-DDD	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
4,4'-DDE	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
4,4'-DDT	µg/kg dw	21 U	38 U	2.0 U	18 U	1.9 U	15 U	7.0 U	29 U	42 U	2.0 U	11 U
Total DDTs (calc'd)	µg/kg dw	21 U	38 U	2.0 U	18 U	1.9 U	15 U	7.0 U	29 U	42 U	2.0 U	11 U
Aldrin	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
Dieldrin	µg/kg dw	6.5 U	11 U	2.0 U	5.2 U	1.9 U	9.1 U	2.0 U	29 U	11 U	2.0 U	2.0 U
Total aldrin/dieldrin (calc'd)	µg/kg dw	6.5 U	11 U	2.0 U	5.2 U	1.9 U	9.1 U	2.0 U	29 U	11 U	2.0 U	2.0 U
alpha-BHC	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
beta-BHC	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
delta-BHC	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
gamma-BHC	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
alpha-Chlordane	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
gamma-Chlordane	µg/kg dw	4.3 U	6.4 U	0.99 U	4.4 U	0.96 U	4.6 U	0.99 U	15 U	8.8 U	0.98 U	1.6 U
alpha-Endosulfan	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
beta-Endosulfan	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
Endosulfan sulfate	µg/kg dw	6.7 U	12 U	2.0 U	6.6 U	1.9 U	9.1 U	2.0 U	29 U	12 U	2.0 U	3.8 U
Endrin	µg/kg dw	7.5 U	10 U	2.0 U	5.2 U	1.9 U	9.1 U	2.0 U	29 U	10 U	2.0 U	2.0 U
Endrin aldehyde	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
Endrin ketone	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
Heptachlor	µg/kg dw	1.4 U	2.7 U	0.99 U	0.97 U	0.96 U	4.6 U	0.99 U	15 U	3.4 U	0.98 U	0.98 U
Heptachlor epoxide	µg/kg dw	4.6 U	6.7 U	0.99 U	3.6 U	0.96 U	4.6 U	0.99 U	15 U	14 U	0.98 U	0.98 U
Methoxychlor	µg/kg dw	14 U	27 U	9.9 U	9.7 U	9.6 U	46 U	9.9 U	150 U	34 U	9.8 U	9.8 U
Mirex	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
Cis-Nonachlor	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
Oxychlordane	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
Toxaphene	µg/kg dw	140 U	270 U	99 U	97 U	96 U	460 U	99 U	1,500 U	340 U	98 U	98 U

Table A-2b, cont.

Analyte	Unit	EW-RM-16		EW-RM-18	EW-RM-19	EW-RM-20	EW-RM-21	EW-RM-23	EW-RM-24	EW-RM-25	EW-RM-26	EW-RM-28
		EW-RM06-16	EW-RM06-101	EW-RM06-18	EW-RM06-19	EW-RM06-20	EW-RM06-21	EW-RM06-23	EW-RM06-24	EW-RM06-25	EW-RM06-26	EW-RM06-28
Trans-Nonachlor	µg/kg dw	2.8 U	5.5 U	2.0 U	1.9 U	1.9 U	9.1 U	2.0 U	29 U	6.8 U	2.0 U	2.0 U
Total Chlordane (calc'd)	µg/kg dw	4.3 U	6.4 U	2.0 U	4.4 U	1.9 U	9.1 U	2.0 U	29 U	8.8 U	2.0 U	2.0 U
Grain size												
Gravel	% dw	13.9	14.6	35.6	52.5	30.9	19.7	19.6	*4.0*	0.6	27.4	15.9
Very coarse sand	% dw	14.0	12.4	37.6	7.5	28.5	16.4	17.8	*7.5*	1.0	31.9	20.4
Coarse sand	% dw	18.6	18.3	22.3	10.4	27.0	16.8	13.3	*13.8*	2.0	26.8	26.7
Medium sand	% dw	18.5	18.0	4.1	9.6	9.2	12.5	6.2	*16.8*	5.1	8.6	20.1
Fine sand	% dw	9.8	9.1	0.2	4.5	1.0	7.9	1.2	*11.5*	11.2	0.9	5.7
Very fine sand	% dw	6.3	6.2	0.1 U	3.0	0.3	6.7	2.1	*8.9*	18.3	0.4	2.6
Coarse silt	% dw	3.6	6.0	nd	1.0	0.2	4.6	6.5	*8.2*	14.9	0.4	1.7
Medium silt	% dw	3.9	4.1	nd	2.5	0.5	3.6	8.1	*7.6*	13.1	0.6	1.6
Fine silt	% dw	3.3	2.9	nd	2.5	0.4	3.6	6.2	*6.2*	9.9	0.7	1.2
Very fine silt	% dw	2.3	2.5	nd	1.9	0.4	2.3	5.0	*4.5*	6.9	0.6	1.0
Clay (phi 8-9)	% dw	1.8	1.8	nd	1.5	0.4	1.7	4.4	*3.6*	5.4	0.6	1.0
Clay (phi 9-10)	% dw	1.2	1.2	nd	1.0	0.2	1.5	2.8	*2.5*	3.7	0.2	0.6
Clay (phi 10+)	% dw	2.8	2.8	nd	2.2	0.9	2.8	6.9	*5.2*	7.8	0.8	1.5
Total Gravel	% dw	13.9	14.6	35.6	52.5	30.9	19.7	19.6	*4.0*	0.6	27.4	15.9
Total Sand (calc'd)	% dw	67.2	64.0	64.2	35.0	66.0	60.3	40.6	*58.5*	37.6	68.6	75.5
Total Silt (calc'd)	% dw	13.1	15.5	nd	7.9	1.5	14.1	25.8	*26.5*	44.8	2.3	5.5
Total Clay (calc'd)	% dw	5.8	5.8	nd	4.7	1.5	6.0	14.1	*11.3*	16.9	1.6	3.1
Fines (percent silt+clay)	% dw	18.9	21.3	nd	12.6	3.0	20.1	39.9	*37.8*	61.7	3.9	8.6
Conventional parameters												
Total organic carbon (TOC)	% dw	1.44	1.70	0.567	*1.60*	0.351	1.66	1.33	*1.45*	1.34	0.500	1.16
Total solids	% ww	71.40	70.90	93.60	*65.10*	88.20	70.0	73.20	66.15	57.60	84.40	80.20

dw – dry weight

ww – wet weight

nd – not detected

Concentration in *italics* indicates that laboratory replicate was run for sample. Value reported was based on averaging rules in Appendix B.

Table A-3a. Concentrations of analytes in Recontamination Monitoring sediment samples compared to SQS/SL and CSL/ML: EW-RM06-1 through EW-RM06-7

Analyte	Unit	SQS	CSL	SL	ML	EW-RM-1	EW-RM-2	EW-RM-3	EW-RM-4	EW-RM-5	EW-RM-6	EW-RM-7
						EW-RM06-1	EW-RM06-2	EW-RM06-3	EW-RM06-4	EW-RM06-5	EW-RM06-6	EW-RM06-7
Metals and trace elements												
Antimony	mg/kg dw			150	200	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	7 UJ	7 UJ
Arsenic	mg/kg dw	57	93			7 U	6 U	6 U	7 U	7 U	7 U	7 U
Cadmium	mg/kg dw	5.1	6.7			0.5	0.2 U	0.2 U	0.4	0.3 U	0.4	0.3
Chromium	mg/kg dw	260	270			22.0	22.8	24.1	19.9	20.7	18.6	21.1
Copper	mg/kg dw	390	390			38.7	26.5	17.1	34.8	33.2	33.4	33.8
Lead	mg/kg dw	450	530			27	10	5	23	17	19	22
Mercury	mg/kg dw	0.41	0.59			0.17	0.06	0.05 U	0.15	0.13	0.13	0.12
Nickel	mg/kg dw			140	370	14	25	19	16	18	18	16
Silver	mg/kg dw	6.1	6.1			0.4 U	0.3 U	0.3 U	0.4 U	0.4 U	0.4 U	0.4 U
Zinc	mg/kg dw	410	960			68.7	48.7	36.6	62.3	52.7	58.1	60
PAHs												
2-Methylnaphthalene	mg/kg OC	38	64			1.5	2.3 U	2.9 U	1.2 J	1.5 U	1.4 J	1.5 U
Acenaphthene	mg/kg OC	16	57			1.2 J	2.3 U	2.9 U	0.78 J	0.84 J	1.9	1.5 J
Acenaphthylene	mg/kg OC	66	66			1.3 J	2.3 U	2.9 U	1.3	1.4 J	1.4 J	1.1 J
Anthracene	mg/kg OC	220	1200			5.1	2.9	2.9 U	4.5	4.9	6.3	6.6
Benzo(a)anthracene	mg/kg OC	110	270			8.8	4.5	2.2 J	7.8	8.4	9.1	8.5
Benzo(a)pyrene	mg/kg OC	99	210			10	5.2	2.2 J	9.1	9.2	9.8	10
Benzo(g,h,i)perylene	mg/kg OC	31	78			3.7	2.2 J	2.9 U	2.7	2.6	3.3	2.6
Total Benzofluoranthenes (calc'd)	mg/kg OC	230	450			24	13	6.6	27	26	29	27
Chrysene	mg/kg OC	110	460			13	7.4	3.1	11	13	14	12
Dibenzo(a,h)anthracene	mg/kg OC	12	33			1.5	2.3 U	2.9 U	0.97 J	0.92 J	1.2 J	1.1 J
Dibenzofuran	mg/kg OC	15	58			1.5 U	2.3 U	2.9 U	1.3 U	1.5 U	1.8	1.3 J
Fluoranthene	mg/kg OC	160	1200			22	10	5.0	18	18	24	21
Fluorene	mg/kg OC	23	79			1.5	2.3 U	2.9 U	1.2 J	1.3 J	2.7	2.1
Indeno(1,2,3-cd)pyrene	mg/kg OC	34	88			3.7	2.1 J	2.9 U	2.9	2.7	3.1	2.6

Table A-3a, cont.

Analyte	Unit	SQS	CSL	SL	ML	EW-RM-1 EW-RM06-1	EW-RM-2 EW-RM06-2	EW-RM-3 EW-RM06-3	EW-RM-4 EW-RM06-4	EW-RM-5 EW-RM06-5	EW-RM-6 EW-RM06-6	EW-RM-7 EW-RM06-7
Naphthalene	mg/kg OC	99	170			1.8	2.3 U	2.9 U	1.4	1.5 J	3.6	1.6
Phenanthrene	mg/kg OC	100	480			8.1	3.7	2.2 J	6.4	5.9	9.1	7.7
Pyrene	mg/kg OC	1000	1400			16	7.0	5.3	22	19	23	18
Total HPAH (calc'd)	mg/kg OC	960	5300			100	51 J	24 J	100 J	99 J	120 J	100 J
Total LPAH (calc'd)	mg/kg OC	370	780			19 J	6.6	2.2 J	16 J	16 J	25 J	21 J
Phthalates												
Bis(2-ethylhexyl)phthalate	mg/kg OC	47	78			16	8.8	4.6	16	15	20	18
Butyl benzyl phthalate	mg/kg OC	4.9	64			1.5 U	2.3 U	2.9 U	1.3 U	1.1 J	1.4 J	1.7
Diethyl phthalate	mg/kg OC	61	110			1.5 U	2.3 U	2.9 U	1.3 U	1.5 U	1.4 U	1.5 U
Dimethyl phthalate	mg/kg OC	53	53			1.5 U	2.3 U	2.9 U	1.3 U	1.5 U	1.4 U	1.5 U
Di-n-butyl phthalate	mg/kg OC	220	1700			1.5 U	2.3 U	2.9 U	0.84 J	1.5 U	2.9	1.5 U
Di-n-octyl phthalate	mg/kg OC	58	4500			1.5 U	2.3 U	2.9 U	1.3 U	1.5 U	1.4 U	1.5 U
Other SVOCs												
1,2,4-Trichlorobenzene	mg/kg OC	0.81	1.8			**1.5 U**	**2.3 U**	**2.9 U**	**1.3 U**	**1.5 U**	**1.4 U**	**1.5 U**
1,2-Dichlorobenzene	mg/kg OC	2.3	2.3			1.5 U	2.3 U	**2.9 U**	1.3 U	1.5 U	1.4 U	1.5 U
1,3-Dichlorobenzene	µg/kg dw			170	nv	20 U	20 U	20 U	20 U	20 U	19 U	20 U
1,4-Dichlorobenzene	mg/kg OC	3.1	9			1.3 J	**7.9**	**5.7**	0.91 J	1.7	**6.2**	1.7
2,4-Dimethylphenol	µg/kg dw	29	29			20 U	20 U	20 U	20 U	20 U	19 U	20 U
2-Methylphenol	µg/kg dw	63	63			20 U	20 U	20 U	20 U	20 U	19 U	20 U
4-Methylphenol	µg/kg dw	670	670			56	51	33	55	33	170	99
Benzoic acid	µg/kg dw	650	650			200 U	200 U	200 U	200 U	200 U	190 U	200 U
Benzyl alcohol	µg/kg dw	57	73			20 U	20 U	20 U	20 U	20 U	19 U	20 UJ
Hexachlorobenzene	mg/kg OC	0.38	2.3			0.11 U	0.11 U	0.14 U	0.18 U	0.21 U	**0.98 U**	0.075 U
Hexachlorobutadiene	mg/kg OC	3.9	6.2			0.11 U	0.11 U	0.14 U	0.18 U	0.21 U	0.98 U	0.075 U
Hexachloroethane	µg/kg dw			1,400	14,000	20 U	20 U	20 U	20 U	20 U	19 U	20 U
N-Nitrosodiphenylamine	mg/kg OC	11	11			1.5 U	2.3 U	2.9 U	1.3 U	1.5 U	1.4 U	1.5 U
Pentachlorophenol	µg/kg dw	360	690			98 U	99 U	97 U	100 U	98 U	97 U	97 U
Phenol	µg/kg dw	420	1200			**630**	330	44	**450**	220	400	**520**
PCBs												
Total PCBs (calc'd)	mg/kg OC	12	65			**32**	4.5	2.8 U	**170**	**16**	12 J	**16**

Table A-3a, cont.

Analyte	Unit	SQS	CSL	SL	ML	EW-RM-1 EW-RM06-1	EW-RM-2 EW-RM06-2	EW-RM-3 EW-RM06-3	EW-RM-4 EW-RM06-4	EW-RM-5 EW-RM06-5	EW-RM-6 EW-RM06-6	EW-RM-7 EW-RM06-7
Pesticides									-			
Total DDTs (calc'd)	µg/kg dw			6.9	69	**29 U**	2.0 U	1.9 U	**24 U**	**38 U**	**27 U**	**17 U**
Aldrin	µg/kg dw			10	nv	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	**13 U**	0.97 U
Dieldrin	µg/kg dw			10	nv	7.7 U	2.0 U	1.9 U	5.6 U	9.8 U	**27 U**	5.6 U
gamma-BHC	µg/kg dw			10	nv	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	**13 U**	0.97 U
Heptachlor	µg/kg dw			10	nv	1.5 U	0.98 U	0.95 U	2.8 U	2.7 U	**13 U**	0.97 U
Total Chlordane (calc'd)	µg/kg dw			10	nv	6.3 U	2.0 U	1.9 U	5.6 U	5.3 U	**27 U**	3.9 U

dw - dry weight

nv - no value; there is neither a CSL nor an ML for this chemical

OC - organic carbon

SQS and CSL - sediment quality standard and cleanup screening level (WAC 173-204)

SL and ML - screening level and maximum level (USACE 2000)

Concentration in **bold** indicates SQS/SL exceedance.

Concentration in **bold underline** indicates CSL/ML exceedance

Table A-3b. Concentrations of analytes in Recontamination Monitoring sediment samples compared to SQS/SL and CSL/ML: EW-RM06-8 through EW-RM06-19

Analyte	Unit	SQS	CSL	SL	ML	EW-RM-8	EW-RM-10	EW-RM-15	EW-RM-16		EW-RM-18	EW-RM-19
						EW-RM06-8	EW-RM06-10	EW-RM06-15	EW-RM06-16	EW-RM06-101	EW-RM06-18	EW-RM06-19
Metals and trace elements												
Antimony	mg/kg dw			150	200	6 UJ	7 UJ	8 UJ	7 UJ	7 UJ	5 UJ	7 UJ
Arsenic	mg/kg dw	57	93			6 U	8	11	8	7	5 U	7
Cadmium	mg/kg dw	5.1	6.7			0.2 U	0.3	2.4	0.4	0.4	0.2 U	0.5
Chromium	mg/kg dw	260	270			17.7	22.7	43.9	23.5	22.0	18.1	22.4
Copper	mg/kg dw	390	390			17.3	42.4	78.4	33.2	39.2	14.9	35.3
Lead	mg/kg dw	450	530			6	23	131	26	25	3	34
Mercury	mg/kg dw	0.41	0.59			0.05 U	**0.67**	**0.78**	0.16	0.15	0.04 U	0.38
Nickel	mg/kg dw			140	370	19	21	26	21	19	17	20
Silver	mg/kg dw	6.1	6.1			0.4 U	0.4 U	2.2	0.4 U	0.4 U	0.3 U	0.4 U
Zinc	mg/kg dw	410	960			36.3	66.4	249	70.3	74.8	29.9	74.8
PAHs												
2-Methylnaphthalene	mg/kg OC	38	64			2.3 U	2.2 J	13	1.4 U	1.2 U	3.5 U	1.2 J
Acenaphthene	mg/kg OC	16	57			2.3 U	2.1 J	4.2	2.2	1.6	3.5 U	1.1 J
Acenaphthylene	mg/kg OC	66	66			2.3 U	2.3	1.9	1.6	0.88 J	3.5 U	1.1 J
Anthracene	mg/kg OC	220	1200			2.3 U	9.8	10	6.3	3.9	3.5 U	5.6
Benzo(a)anthracene	mg/kg OC	110	270			1.9 J	17	16	9.7	5.9	3.5 U	8.1
Benzo(a)pyrene	mg/kg OC	99	210			1.8 J	21	14	12	7.1	3.5 U	8.8
Benzo(g,h,i)perylene	mg/kg OC	31	78			2.3 U	5.5	4.8	3.1	2.0	3.5 U	2.7
Total Benzofluoranthenes (calc'd)	mg/kg OC	230	450			5.2 J	55	36	28	18	3.5 U	24
Chrysene	mg/kg OC	110	460			2.7	26	23	15	9.4	3.5 U	12
Dibenzo(a,h)anthracene	mg/kg OC	12	33			2.3 U	2.2 J	1.3 J	1.2 J	0.76 J	3.5 U	0.69 J
Dibenzofuran	mg/kg OC	15	58			2.3 U	1.9 J	3.5	1.7	1.1 J	3.5 U	1.3 U
Fluoranthene	mg/kg OC	160	1200			3.8	35	40	26	18	3.5 U	21
Fluorene	mg/kg OC	23	79			2.3 U	2.9	7.8	2.1	1.4	3.5 U	1.8
Indeno(1,2,3-cd)pyrene	mg/kg OC	34	88			2.3 U	5.6	3.7	3.4	2.1	3.5 U	2.6

Table A-3b, cont.

Analyte	Unit	SQS	CSL	SL	ML	EW-RM-8	EW-RM-10	EW-RM-15	EW-RM-16		EW-RM-18	EW-RM-19
						EW-RM06-8	EW-RM06-10	EW-RM06-15	EW-RM06-16	EW-RM06-101	EW-RM06-18	EW-RM06-19
Naphthalene	mg/kg OC	99	170			2.3 U	3.4	5.2	2.4	1.5	3.5 U	1.8
Phenanthrene	mg/kg OC	100	480			1.7 J	14	17	9.0	5.4	3.5 U	8.1
Pyrene	mg/kg OC	1000	1400			3.9	35	52	15	11	3.5 U	21
Total HPAH (calc'd)	mg/kg OC	960	5300			19 J	200 J	190 J	110 J	74 J	3.5 U	100 J
Total LPAH (calc'd)	mg/kg OC	370	780			1.7 J	34 J	46	24	15 J	3.5 U	19 J
Phthalates												
Bis(2-ethylhexyl)phthalate	mg/kg OC	47	78			8.4	30	**120**	16	12	3.5 U	14
Butyl benzyl phthalate	mg/kg OC	4.9	64			2.3 U	2.9	1.7 U	1.4 U	1.2 U	3.5 U	1.3 U
Diethyl phthalate	mg/kg OC	61	110			2.3 U	2.3 U	1.7 U	1.4 U	1.2 U	3.5 U	1.3 U
Dimethyl phthalate	mg/kg OC	53	53			2.3 U	2.3 U	1.7 U	1.4 U	1.2 U	3.5 U	1.3 U
Di-n-butyl phthalate	mg/kg OC	220	1700			2.3 U	2.3 U	5.2	1.4 U	1.2 U	3.5 U	1.3 U
Di-n-octyl phthalate	mg/kg OC	58	4500			2.3 U	2.3 U	1.7 U	1.4 U	1.2 U	3.5 U	1.3 U
Other SVOCs												
1,2,4-Trichlorobenzene	mg/kg OC	0.81	1.8			**2.3 U**	**2.3 U**	**1.7 U**	**1.4 U**	**1.2 U**	**3.5 U**	**1.3 U**
1,2-Dichlorobenzene	mg/kg OC	2.3	2.3			2.3 U	2.3 U	1.7 U	1.4 U	1.2 U	**3.5 U**	1.3 U
1,3-Dichlorobenzene	µg/kg dw			170	nv	20 U	28	20 J	20 U	20 U	20 U	20 U
1,4-Dichlorobenzene	mg/kg OC	3.1	9			2.3 U	**3.2**	**7.4**	1.0 J	1.4	**3.5 U**	0.81 J
2,4-Dimethylphenol	µg/kg dw	29	29			20 U	20 U	**39 U**	20 U	20 U	20 U	20 U
2-Methylphenol	µg/kg dw	63	63			20 U	20 U	39 U	20 U	20 U	20 U	20 U
4-Methylphenol	µg/kg dw	670	670			20 U	100	100	120	80	20 U	200
Benzoic acid	µg/kg dw	650	650			200 U	200 U	390 U	200 U	200 U	200 U	200 U
Benzyl alcohol	µg/kg dw	57	73			20 UJ	20 UJ	39 UJ	20 U	20 U	20 UJ	20 UJ
Hexachlorobenzene	mg/kg OC	0.38	2.3			0.11 U	0.16 U	**0.74 U**	0.097 U	0.16 U	0.17 U	0.061 U
Hexachlorobutadiene	mg/kg OC	3.9	6.2			0.11 U	0.16 U	0.74 U	0.097 U	0.16 U	0.17 U	0.061 U
Hexachloroethane	µg/kg dw			1,400	14,000	20 U	20 U	39 U	20 U	20 U	20 U	20 U
N-Nitrosodiphenylamine	mg/kg OC	11	11			2.3 U	2.3 U	1.7 U	1.4 U	1.2 U	3.5 U	1.3 U
Pentachlorophenol	µg/kg dw	360	690			100 U	98 U	200 U	100 U	98 U	100 U	98 U
Phenol	µg/kg dw	420	1200			20 U	**470**	340	**560**	390	20 U	**480**
PCBs												
Total PCBs (calc'd)	mg/kg OC	12	65			2.3 J	**23**	**100**	**16**	**19**	3.5 U	**30**

Table A-3b, cont.

Analyte	Unit	SQS	CSL	SL	ML	EW-RM-8	EW-RM-10	EW-RM-15	EW-RM-16		EW-RM-18	EW-RM-19
						EW-RM06-8	EW-RM06-10	EW-RM06-15	EW-RM06-16	EW-RM06-101	EW-RM06-18	EW-RM06-19
Pesticides								-				
Total DDTs (calc'd)	µg/kg dw			6.9	69	2.0 U	**20 U**	**270 U**	**21 U**	**38 U**	2.0 U	**18 U**
Aldrin	µg/kg dw			10	nv	1.0 U	1.4 U	**17 U**	1.4 U	2.7 U	0.99 U	0.97 U
Dieldrin	µg/kg dw			10	nv	2.0 U	5.5 U	**110 U**	6.5 U	**11 U**	2.0 U	5.2 U
gamma-BHC	µg/kg dw			10	nv	1.0 U	1.4 U	**17 U**	1.4 U	2.7 U	0.99 U	0.97 U
Heptachlor	µg/kg dw			10	nv	1.0 U	1.4 U	**17 U**	1.4 U	2.7 U	0.99 U	0.97 U
Total Chlordane (calc'd)	µg/kg dw			10	nv	2.0 U	4.4 U	**34 U**	4.3 U	6.4 U	2.0 U	4.4 U

dw - dry weight

nv - no value; there is neither a CSL nor an ML for this chemical

OC - organic carbon

SQS and CSL - sediment quality standard and cleanup screening level (WAC 173-204)

SL and ML - screening level and maximum level (USACE 2000)

Concentration in **bold** indicates SQS/SL exceedance.

Concentration in **bold underline** indicates CSL/ML exceedance

Table A-3c. Concentrations of analytes in Recontamination Monitoring sediment samples compared to SQS/SL and CSL/ML: EW-RM06-21 through EW-RM06-28

Analyte	Unit	SQS	CSL	SL	ML	EW-RM-21	EW-RM-23	EW-RM-24	EW-RM-25	EW-RM-26	EW-RM-28
						EW-RM06-21	EW-RM06-23	EW-RM06-24	EW-RM06-25	EW-RM06-26	EW-RM06-28
Metals and trace elements											
Antimony	mg/kg dw			150	200	7 UJ	7 UJ	7 UJ	8 UJ	6 UJ	6 UJ
Arsenic	mg/kg dw	57	93			8	8	7	11	6 U	6
Cadmium	mg/kg dw	5.1	6.7			0.4	0.3 U	0.6	0.7	0.2 U	0.2 U
Chromium	mg/kg dw	260	270			21.1	23.6	20.7	30.1	19.9	20.6
Copper	mg/kg dw	390	390			35.0	30.3	30.2	49.1	19.1	22.5
Lead	mg/kg dw	450	530			22	16	27	39	8	11
Mercury	mg/kg dw	0.41	0.59			0.17	0.21	0.28	0.33	0.05 U	0.08
Nickel	mg/kg dw			140	370	18	25	17	22	22	20
Silver	mg/kg dw	6.1	6.1			0.4 U	0.4 U	0.4 U	0.5	0.3 U	0.4 U
Zinc	mg/kg dw	410	960			66.6	54.3	70.1	95	38.4	41.9
PAHs											
2-Methylnaphthalene	mg/kg OC	38	64			1.1 U	1.5 U	2.3	2.2	4.0 U	1.7 U
Acenaphthene	mg/kg OC	16	57			0.78 J	1.5 U	1.9	2.2	4.0 U	1.7 U
Acenaphthylene	mg/kg OC	66	66			1.0 J	1.5 U	1.5	2.3	4.0 U	1.7 U
Anthracene	mg/kg OC	220	1200			4.5	2.7	5.5	8.2	4.0 U	2.6
Benzo(a)anthracene	mg/kg OC	110	270			8.4	4.1	9.0	13	2.6 J	3.6
Benzo(a)pyrene	mg/kg OC	99	210			9.6	3.9	9.0	14	3.0 J	4.2
Benzo(g,h,i)perylene	mg/kg OC	31	78			2.2	1.3 J	2.9	4.9	4.0 U	1.4 J
Total Benzofluoranthenes (calc'd)	mg/kg OC	230	450			24	9.2	24	40	7.4 J	11
Chrysene	mg/kg OC	110	460			13	6.0	12	19	3.4 J	5.8
Dibenzo(a,h)anthracene	mg/kg OC	12	33			0.72 J	1.5 U	0.90 J	1.6	4.0 U	1.7 U
Dibenzofuran	mg/kg OC	15	58			1.1 U	1.5 U	1.6	1.9	4.0 U	1.7 U
Fluoranthene	mg/kg OC	160	1200			17	9.0	26	38	6.4	8.1
Fluorene	mg/kg OC	23	79			1.4	1.2 J	2.5	3.6	4.0 U	1.7 U
Indeno(1,2,3-cd)pyrene	mg/kg OC	34	88			2.3	1.3 J	2.8	4.6	4.0 U	1.5 J

Table A-3c, cont.

Analyte	Unit	SQS	CSL	SL	ML	EW-RM-21 EW-RM06-21	EW-RM-23 EW-RM06-23	EW-RM-24 EW-RM06-24	EW-RM-25 EW-RM06-25	EW-RM-26 EW-RM06-26	EW-RM-28 EW-RM06-28
Naphthalene	mg/kg OC	99	170			1.3	1.1 J	2.1	3.0	4.0 U	1.7 U
Phenanthrene	mg/kg OC	100	480			6.6	4.2	10	14	2.4 J	3.2
Pyrene	mg/kg OC	1000	1400			15	12	23	40	7.8	7.2
Total HPAH (calc'd)	mg/kg OC	960	5300			93 J	47 J	110 J	180	31 J	43 J
Total LPAH (calc'd)	mg/kg OC	370	780			16 J	9.2 J	24	34	2.4 J	5.8
Phthalates											
Bis(2-ethylhexyl)phthalate	mg/kg OC	47	78			16	2.5	26	20	13	6.6
Butyl benzyl phthalate	mg/kg OC	4.9	64			1.1 U	1.5 U	1.4 U	1.5 U	4.0 U	1.7 U
Diethyl phthalate	mg/kg OC	61	110			1.1 U	1.5 U	1.4 U	1.5 U	4.0 U	1.7 U
Dimethyl phthalate	mg/kg OC	53	53			1.1 U	1.5 U	1.4 U	1.5 U	4.0 U	1.7 U
Di-n-butyl phthalate	mg/kg OC	220	1700			1.1 U	1.5 U	0.97 J	1.5 U	4.0 U	1.7 U
Di-n-octyl phthalate	mg/kg OC	58	4500			1.1 U	1.5 U	1.4 U	1.5 U	4.0 U	1.7 U
Other SVOCs											
1,2,4-Trichlorobenzene	mg/kg OC	0.81	1.8			**1.1 U**	**1.5 U**	**1.4 U**	**1.5 U**	**4.0 U**	**1.7 U**
1,2-Dichlorobenzene	mg/kg OC	2.3	2.3			1.1 U	1.5 U	1.4 U	1.5 U	**4.0 U**	1.7 U
1,3-Dichlorobenzene	µg/kg dw			170	nv	19 U	20 U	20 U	20 U	20 U	20 U
1,4-Dichlorobenzene	mg/kg OC	3.1	9			1.0 J	1.5 U	1.0 J	1.7	**4.0 U**	1.7 U
2,4-Dimethylphenol	µg/kg dw	29	29			19 U	20 U	20 U	20 U	20 U	20 U
2-Methylphenol	µg/kg dw	63	63			19 U	20 U	20 U	20 U	20 U	20 U
4-Methylphenol	µg/kg dw	670	670			120	16 J	24	57	20 U	61
Benzoic acid	µg/kg dw	650	650			190 U	200 U	200 U	200 U	200 U	200 U
Benzyl alcohol	µg/kg dw	57	73			19 UJ	20 UJ	20 U	20 U	20 UJ	20 UJ
Hexachlorobenzene	mg/kg OC	0.38	2.3			0.28 U	0.074 U	**1.0 U**	0.25 U	0.20 U	0.084 U
Hexachlorobutadiene	mg/kg OC	3.9	6.2			0.28 U	0.074 U	1.0 U	0.25 U	0.20 U	0.084 U
Hexachloroethane	µg/kg dw			1,400	14,000	19 U	20 U	20 U	20 U	20 U	20 U
N-Nitrosodiphenylamine	mg/kg OC	11	11			1.1 U	1.5 U	1.4 U	1.5 U	4.0 U	1.7 U
Pentachlorophenol	µg/kg dw	360	690			97 U	100 U	99 U	99 U	98 U	98 U
Phenol	µg/kg dw	420	1200			330	36	310	**590**	20 U	290
PCBs											
Total PCBs (calc'd)	mg/kg OC	12	65			12 J	7.1	**14 J**	**34**	**40**	6.8

Table A-3c, cont.

Analyte	Unit	SQS	CSL	SL	ML	EW-RM-21 EW-RM06-21	EW-RM-23 EW-RM06-23	EW-RM-24 EW-RM06-24	EW-RM-25 EW-RM06-25	EW-RM-26 EW-RM06-26	EW-RM-28 EW-RM06-28
Pesticides											
Total DDTs (calc'd)	µg/kg dw			6.9	69	**15 U**	**7.0 U**	**29 U**	**42 U**	2.0 U	**11 U**
Aldrin	µg/kg dw			10	nv	4.6 U	0.99 U	**15 U**	3.4 U	0.98 U	0.98 U
Dieldrin	µg/kg dw			10	nv	9.1 U	2.0 U	**29 U**	**11 U**	2.0 U	2.0 U
gamma-BHC	µg/kg dw			10	nv	4.6 U	0.99 U	**15 U**	3.4 U	0.98 U	0.98 U
Heptachlor	µg/kg dw			10	nv	4.6 U	0.99 U	**15 U**	3.4 U	0.98 U	0.98 U
Total Chlordane (calc'd)	µg/kg dw			10	nv	9.1 U	2.0 U	**29 U**	8.8 U	2.0 U	2.0 U

dw - dry weight

nv - no value; there is neither a CSL nor an ML for this chemical

OC - organic carbon

SQS and CSL - sediment quality standard and cleanup screening level (WAC 173-204)

SL and ML - screening level and maximum level (USACE 2000)

Concentration in **bold** indicates SQS/SL exceedance.

Concentration in **bold underline** indicates CSL/ML exceedance

Table A-4. AET substitution

Analyte	Unit	AET Substitution SQS	CSL	SL	ML	EW-RM-20 EW-RM06-20
Metals and trace elements						
Antimony	mg/kg dw			150	200	5 UJ
Arsenic	mg/kg dw	57	93			6
Cadmium	mg/kg dw	5.1	6.7			0.2 U
Chromium	mg/kg dw	260	270			15.7
Copper	mg/kg dw	390	390			17.2
Lead	mg/kg dw	450	530			5
Mercury	mg/kg dw	0.41	0.59			0.05 U
Nickel	mg/kg dw			140	370	18
Silver	mg/kg dw	6.1	6.1			0.3 U
Zinc	mg/kg dw	410	960			33.4
PAHs						
2-Methylnaphthalene	µg/kg dw	670				20 U
Acenaphthene	µg/kg dw	500				20 U
Acenaphthylene	µg/kg dw	560				20 U
Anthracene	µg/kg dw	960				20 U
Benzo(a)anthracene	µg/kg dw	1300	1600			20 U
Benzo(a)pyrene	µg/kg dw	1600				20 U
Benzo(g,h,i)perylene	µg/kg dw	670	720			20 U
Total Benzofluoranthenes (calc'd)	µg/kg dw	3200	3600			22 J
Chrysene	µg/kg dw	1400	2800			11 J
Dibenzo(a,h)anthracene	µg/kg dw	230				20 U
Dibenzofuran	µg/kg dw	540				20 U
Fluoranthene	µg/kg dw	1700	2500			27
Fluorene	µg/kg dw	540				20 U
Indeno(1,2,3-cd)pyrene	µg/kg dw	600	690			20 U
Naphthalene	µg/kg dw	2100				20 U
Phenanthrene	µg/kg dw	1500	2100			19 J
Pyrene	µg/kg dw	2600	3300			24
Total HPAH (calc'd)	µg/kg dw	12000	17000			84 J
Total LPAH (calc'd)	µg/kg dw	5200				19 J
Phthalates						
Bis(2-ethylhexyl)phthalate	µg/kg dw	1300	1900			23
Butyl benzyl phthalate	µg/kg dw	63	470			20 U

Table A-4, cont.

Analyte	Unit	AET Substitution				EW-RM-20
		SQS	CSL	SL	ML	EW-RM06-20
Diethyl phthalate	µg/kg dw	48	73			20 U
Dimethyl phthalate	µg/kg dw	71	160			20 U
Di-n-butyl phthalate	µg/kg dw	1400				20 U
Di-n-octyl phthalate	µg/kg dw	420	2100			20 U
Other SVOCs						
1,2,4-Trichlorobenzene	µg/kg dw	31	51			20 U
1,2-Dichlorobenzene	µg/kg dw	35	50			20 U
1,3-Dichlorobenzene	µg/kg dw		nv	170	nv	20 U
1,4-Dichlorobenzene	µg/kg dw	110	nv			20 U
2,4-Dimethylphenol	µg/kg dw	29	29			20 U
2-Methylphenol	µg/kg dw	63	63			20 U
4-Methylphenol	µg/kg dw	670	670			20 U
Benzoic acid	µg/kg dw	650	650			200 U
Benzyl alcohol	µg/kg dw	57	73			20 UJ
Hexachlorobenzene	µg/kg dw	22	70			0.96 U
Hexachlorobutadiene	µg/kg dw	11	120			0.96 U
Hexachloroethane	µg/kg dw			1,400	14,000	20 U
N-Nitrosodiphenylamine	µg/kg dw	28	40			20 U
Pentachlorophenol	µg/kg dw	360	690			98 U
Phenol	µg/kg dw	420	1200			20 U
PCBs						
Total PCBs (calc'd)	µg/kg dw	130	1000			45 J
Pesticides						
Total DDTs (calc'd)	µg/kg dw			6.9	69	1.9 U
Aldrin	µg/kg dw		nv	10	nv	0.96 U
Dieldrin	µg/kg dw		nv	10	nv	1.9 U
gamma-BHC	µg/kg dw		nv	10	nv	0.96 U
Heptachlor	µg/kg dw		nv	10	nv	0.96 U
Total Chlordane (calc'd)	µg/kg dw		nv	10	nv	1.9 U

dw - dry weight

nv - no value; there is neither a CSL nor an ML for this chemical

OC - organic carbon

SQS and CSL - sediment quality standard and cleanup screening level (WAC 173-204)

SL and ML - screening level and maximum level (USACE 2000)

APPENDIX B: DATA MANAGEMENT

B.1 LABORATORY REPLICATES

Chemical concentrations obtained from the analysis of laboratory duplicates or replicates (two or more analyses on the same sample) were averaged for a closer representation of the "true" concentration compared to the results of a single analysis. Averaging rules were dependent on whether the individual results were "detects" or "non-detects." If all concentrations were detects for a given parameter, the values were simply averaged arithmetically. If all concentrations were undetected for a given parameter, the minimum detection limit was reported. If the concentrations are a mixture of detects and non-detects, any two or more detected concentrations were averaged arithmetically and any detection limits were ignored. If there was a single detected concentration and one or more non-detects, the detected concentration was reported and the detection limit(s) ignored. The latter two rules were applied regardless of whether the detection limit was higher or lower than the detected concentration.

B.2 SIGNIFICANT FIGURES AND ROUNDING

The laboratory reported results with various numbers of significant figures depending on the instrument, parameter, and the concentration relative to the reporting limit. The reported (or assessed) precision of each observation is explicitly stored in the project database by recording the number of significant figures assigned by the laboratory. Tracking of significant figures becomes important when calculating averages and performing other data summaries.

When a calculation involves addition, such as totaling PCBs or PAHs, the calculation can only be as precise as the least precise number that went into the calculation. Example (assuming 2 significant figures):

> 210 + 19=229, but this would be reported as 230 because the trailing zero in the number 210 is not significant.

When a calculation involves multiplication or division, such as when carbon normalizing, all significant figures are carried through the calculation and then the total result is rounded at the end of the calculation to reflect the value used in the calculation with the fewest significant figures. Example:

> 59.9 x 1.2 = 71.88, to be reported as 72 because there are 2 significant figures in the number 1.2

When rounding, if the number following the last significant figure is less than 5, the digit is left unchanged. If the number following the last significant figure is equal to or greater than 5, the digit is increased by 1.

B.3 CALCULATING TOTALS

Concentrations for several analyte sums were calculated as follows:

- **Total PCBs** were calculated, in accordance with the methods of the Washington State Sediment Management Standards (SMS), using only detected values for seven Aroclor mixtures[1]. For individual samples in which none of the seven Aroclor mixtures were detected, total PCBs were given a value equal to the highest reporting limit of the seven Aroclors and assigned a "U" qualifier indicating the lack of detected concentrations.
- **Total LPAHs, HPAHs, PAHs, and benzofluoranthenes** were also calculated in accordance with the methods of the SMS. Total LPAHs are the sum of detected concentrations for naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, and anthracene. Total HPAHs are the sum of detected concentrations for fluoranthene, pyrene, benzo(a)anthracene, chrysene, total benzofluoranthenes, benzo(a)pyrene, indeno(1,2,3,-c,d)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene. Total benzofluoranthenes are the sum of the b (i.e., benzo(b)fluoranthene), j, and k isomers. Because the j isomer is rarely quantitated, this sum is typically calculated with only the b and k isomers. For samples in which all individual compounds within any of the three groups described above were undetected, the single highest reporting limit for that sample represents the sum.
- **Total DDTs** were calculated using only detected values for the six DDT isomers: 2,4'-DDD, 4,4'-DDD, 2,4'-DDE, 4,4'-DDE, 4,4'-DDT, and 4,4'-DDT. For individual samples in which none of the isomers were detected, total DDTs were given a value equal to the highest reporting limit of the six isomers and assigned a "U" qualifier, indicating the lack of detected concentrations.
- **Total chlordane** was calculated using only detected values for the following compounds: alpha-chlordane, gamma-chlordane, oxychlordane, cis-nonachlor, and trans-nonachlor. For individual samples in which none of these compounds was detected, total chlordane was given a value equal to the highest reporting limit of the five compounds listed above and assigned a "U"qualifier, indicating the lack of detected concentrations.

B.4 MULTIPLE RESULTS FOR THE SAME ANALYTE

The following rules have been used to select a value when multiple results have been reported for a single analyte for a single sample because the analyte is reported by more than one method (e.g., hexachlorobenzene):

[1] Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260

- If all results are reported as detected without qualification as an estimated value (i.e., J qualifier), then the highest concentration is selected as a health-protective approach.
- If a mixture of J-qualified and unqualified detected results are reported, then the unqualified detected result is selected.
- If all results are reported as detected with J-qualification, the highest concentration is selected.
- If both non-detected and detected results are reported, then the detected result is selected. If there are multiple detected results and one or more non-detect results, then the highest detected concentration is selected.
- If all results are reported as non-detected, then the lowest reporting limit is selected.

APPENDIX C. DATA VALIDATION REPORTS

EcoChem, Inc.

Environmental Science and Chemistry

TRANSMITTAL

DATE: March 28, 2006

PROJECT NO.: C22004-1

TO: Marina Mitchell
Windward Environmental LLC
200 West Mercer Street, Suite 401
Seattle, WA 98119-3958

(206)577-1290

FROM: Chris Ransom
EcoChem, Inc.
710 Second Ave, Suite 660
Seattle, WA 98104
cransom@ecochem.net

VIA: **U.S. Mail**

WE ARE SENDING THE FOLLOWING MATERIALS:

Data Validation report for the Port of Seattle Duwamish East Waterway Recontamination Monitroring.

Sincerely,

Chris Ransom
Project Manager
EcoChem, Inc.

Copies: Project files
Chron

CJW 3/28/2006 2:24:13 PM
I:\220-windward\c22004.001\trans.doc

EcoChem, Inc.

Environmental Science and Chemistry

DATA VALIDATION REPORT

Port of Seattle
Duwamish East Waterway
Recontamination Monitoring

Prepared for:

Windward Environmental, LLC
200 West Mercer Street, Suite 401
Seattle, Washington 98119

Prepared by:

EcoChem, Inc.
710 Second Avenue, Suite 660
Seattle, Washington 98104

EcoChem Project: C22004-1

March 27, 2006

Approved for Release:

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Project Manager
EcoChem, Inc.

PROJECT NARRATIVE

Basis for the Data Validation

This report summarizes the results of the validation performed on sediment samples and associated field and laboratory quality control samples. A **SAMPLE INDEX** is provided, followed by the validation report.

Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. The analytical methods and EcoChem project chemists are listed in the table below.

ANALYSIS METHODS AND ECOCHEM CHEMISTS

Analysis	Method	Primary Review	Secondary Review
PCB – Aroclors	SW 8082	Craig Hutchings	John Mitchell
Pesticides	SW 8081	Mark Brindle	
Semivolatile Organic Compounds	SW 8270C	Melissa Swanson	
Metals	SW 6010B	Wayne Francis	Christine Ransom
Total Organic Carbon	Plumb 1981		
Grain Size	PSEP		
Total Solids	E160.3		

The data were reviewed using guidance and quality control criteria documented in the analytical methods; the project quality assurance project plan (QAPP) *Port of Seattle, East Waterway Phase I Removal Action: Recontamination Action Plan (October 4, 2005)*; and *National Functional Guidelines for Inorganic (USEPA 1994 & 2002) and Organic Data Review* (USEPA 1999).

Data qualifier definitions, reason codes, and validation criteria are included as **APPENDIX A**. **APPENDIX B** contains the Qualified Data Summary Table**.** Data validation worksheets will be kept on file at EcoChem.

Sample Index
Port of Seattle
Duwamish East Waterway Recontamination Monitoring

Sample ID	Laboratory ID	SVOC	Metals	TOC	Total Solids	Grain Size	PCB	Pesticides
EW-RM06-01	06-1115-IZ26A	✓	✓	✓	✓	✓	✓	✓
EW-RM06-02	06-1116-IZ26B	✓	✓	✓	✓	✓	✓	✓
EW-RM06-16	06-1117-IZ26C	✓	✓	✓	✓	✓	✓	✓
EW-RM06-101	06-1118-IZ26D	✓	✓	✓	✓	✓	✓	✓
EW-RM06-101DL	06-1118-IZ26DDL	✓						
EW-RM06-24	06-1119-IZ26E	✓	✓	✓	✓	✓	✓	✓
EW-RM06-25	06-1120-IZ26F	✓	✓	✓	✓	✓	✓	✓
EW-RM06-15	06-1121-IZ26G	✓	✓	✓	✓	✓	✓	✓
EW-RM06-28	06-1122-IZ26H	✓	✓	✓	✓	✓	✓	✓
EW-RM06-26	06-1123-IZ26I	✓	✓	✓	✓	✓	✓	✓
EW-RM06-23	06-1124-IZ26J	✓	✓	✓	✓	✓	✓	✓
EW-RM06-20	06-1125-IZ26K	✓	✓	✓	✓	✓	✓	✓
EW-RM06-18	06-1126-IZ26L	✓	✓	✓	✓	✓	✓	✓
EW-RM06-3-RB	06-1127-IZ26M	✓	✓				✓	✓
EW-RM06-3	06-1128-IZ26N	✓	✓	✓	✓	✓	✓	✓
EW-RM06-4	06-1129-IZ26O	✓	✓	✓	✓	✓	✓	✓
EW-RM06-5	06-1130-IZ26P	✓	✓	✓	✓	✓	✓	✓
EW-RM06-6	06-1131-IZ26Q	✓	✓	✓	✓	✓	✓	✓
EW-RM06-7	06-1132-IZ26R	✓	✓	✓	✓	✓	✓	✓
EW-RM06-8	06-1133-IZ26S	✓	✓	✓	✓	✓	✓	✓
EW-RM06-10	06-1134-IZ26T	✓	✓	✓	✓	✓	✓	✓
EW-RM06-19	06-1135-IZ26U	✓	✓	✓	✓	✓	✓	✓
EW-RM06-21	06-1136-IZ26V	✓	✓	✓	✓	✓	✓	✓

DATA VALIDATION REPORT
Port of Seattle
Duwamish East Waterway Recontamination Monitoring
Semivolatile Organic Compounds
SW846 Method 8270D
SDG: IZ26

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Seattle, Washington. Full validation (Level IV) was performed on all samples. Refer to the **Sample Index** for a list of samples reviewed.

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables, with the exceptions noted below. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Ten percent of the results were verified. No errors were found.

III. TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed below.

1	Holding Times and Sample Preservation	1	Laboratory Control Samples (LCS)
	GC/MS Instrument Performance Check	1	Field Duplicates
1	Initial Calibration (ICAL)	2	Internal Standards
2	Continuing Calibration (CCAL)		Compound Identification
	Laboratory Blanks	1	Reporting Limits
1	Field Blanks		Target Analyte List
	Surrogate Compounds	1	Calculation Verification
	Matrix Spikes/Matrix Spike Duplicates (MS/MSD)		

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[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Holding Times and Sample Preservation

Two of the three sample coolers were received at the laboratory with temperatures outside the advisory control limits of 2° to 6°C, at -12 ºC and -2 ºC Since the samples were preserved by freezing at or below -20 ºC, the outliers were judged to have no impact on the data and no action was taken.

All samples were extracted and analyzed within the QAPP specified holding times for frozen sediments.

Initial Calibration

A six-point initial calibration (ICAL) was performed. The percent relative standard deviations (%RSD) were within the control limit of ±30%, with the exception noted below. All correlation coefficients (r) were greater than 0.995, and relative response factor (RRF) values were calculated correctly and were greater than the minimum of 0.05.

The RSD value for 2,4-dinitrophenol (41.6%) exceeded the control limit of 30% from the ICAL analyzed on 1/19/06. No positive results were reported; therefore no qualifiers were applied.

Continuing Calibration

Continuing calibrations (CCAL) were analyzed at the proper frequency. The percent differences (%D) were within the control limit of ±25% and RRF values were greater than the minimum of 0.05, with the exceptions below. The %D values were calculated correctly.

For outliers indicative of low response, results and reporting limits were estimated (J/UJ-5B) in all associated samples.

CCAL 1/30/06: 2,4-dinitrophenol (35.0%) with low response

CCAL 2/08/06: 2,4-dinitrophenol (35.0%), 3-nitroaniline (35.7%), and 4-nitroaniline (34.4%) with low response

CCAL 2/09/06: Benzyl alcohol (64.1%), 2,4-dinitrophenol (75.2%), and 4,6-dinitro-2-methylphenol (34.6%) with low response

CCAL 2/10/06: Benzyl alcohol (76.9%), 2,4-dinitrophenol (64.4%), and 4,6-dinitro-2-methylphenol (26.2%) with low response and benzo(g,h,i)perylene (-33.2%) and indeno(1,2,3-c,d)pyrene (-28.8%) with high response. This CCAL was associated with only QC samples, so no qualifiers were applied.

Field Blanks

An equipment rinse blank was submitted with this SDG. No positive results were reported in EW-RM06-3-RB.

Laboratory Control Sample Analyses

A laboratory control sample (LCS) was analyzed at the proper frequency of one per extraction batch. All %R values met laboratory and QAPP acceptance criteria.

The relative percent difference (RPD) value for 3,3'-dichlorobenzidine was outside control limits for the LCS/LCSD analyzed with this SDG. No positive values were reported in the samples; reporting limits were judged to be unaffected. No qualifiers were required.

Field Duplicates

Samples EW-RM06-16 and EW-RM06-101 were submitted as field duplicates. All relative percent difference (RPD) values were less than the control limit of 50% or the absolute difference was less than twice the reporting limit. Field precision was acceptable.

Internal Standards

An evaluation of areas and retention times for internal standards (IS) was performed as required. All retention times were within ±30 seconds of the associated CCAL internal standard retention time. The internal standard areas were within the specified acceptance limits of 50% to 200% of the associated CCAL internal standard area, with the following exception:

The %R value for the internal standard chrysene-d12 was 200% of the CCAL standard in Sample EW-RM06-101. This internal standard is used for quantitation of 3,3'-dichlorobenzidine, chrysene, and bis(2-ethylhexyl) phthalate only. This sample was re-analyzed at dilution, bringing all internal standards within control limits. No positive results for 3,3'-dichlorobenzidine were detected for either analysis, and no qualifier was required due to increased response. Positive results for chrysene and bis(2-ethylhexyl) phthalate were reported from the re-analysis. All other analytes were reported from the original analysis. The chrysene and bis(2-ethylhexyl) phthalate results from the original analysis were rejected (R-11) and the result for the remaining analytes were rejected (R-11) in the dilution to denote that more appropriate results were reported. A usable result remains for every analyte for this sample.

Reporting Limits

The reporting limits in some samples exceeded the target reporting limits specified in the QAPP.

Calculation Verification

Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT OF THE DATA

As was determined by this evaluation, the laboratory followed the specified analytical methods. Precision was acceptable, as demonstrated by the matrix spike/matrix spike duplicate (MS/MSD), LCS/LCSD, and field duplicate RPD values. Accuracy was also acceptable, as demonstrated by the surrogate, LCS/LCSD, and MS/MSD recovery results.

Data were rejected to indicate the most appropriate result from multiple reported results. A usable result remains for all analytes.

Data were qualified as estimated because of CCAL %D outliers.

Rejected data should not be used for any purpose. All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
Port of Seattle
Duwamish East Waterway Recontamination Monitoring
Organochlorine Pesticides by SW846 Method 8081A
SDG: IZ26

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Full validation (Level IV) was performed on all samples. Refer to the **Sample Index** for a list of samples reviewed.

I. DATA PACKAGE COMPLETENESS

All required deliverables were submitted by the laboratory. The laboratory followed adequate corrective action processes, and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Ten percent of the results were verified. No errors were found.

III. TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed below.

1	Holding Times and Sample Preservation		Laboratory Control Samples (LCS)
	Initial Calibration (ICAL)	1	Matrix Spikes/Matrix Spike Duplicates (MS/MSD)
	Continuing Calibration (CCAL)		Internal Standards
	Laboratory Blanks		Compound Identification
1	Field Blanks	1	Reporting Limits (MDL and MRL)
	Surrogate Compounds	1	Calculation Verification
1	Field Duplicates		

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Holding Times and Sample Preservation

Two of the three sample coolers were received at the laboratory with temperatures outside the advisory control limits of 2° to 6°C, at -12 ºC and -2 ºC Since the samples were preserved by freezing at or below -20 ºC, the outliers were judged to have no impact on the data and no action was taken.

All samples were extracted and analyzed within the QAPP specified holding time for frozen sediments.

Field Blanks

Sample EW-RM06-3-RB was submitted as a field rinsate blank. No positive results were detected.

Field Duplicates

Samples EW-RM06-16 and EW-RM06-101 were submitted as field duplicates. No positive results were reported in either sample. Field precision was acceptable.

Matrix Spike/Matrix Spike Duplicate Analyses

Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed using Sample EW-RM06-24. The relative percent difference (RPD) value for 4,4′-DDT exceeded the control limit of 30%, at 38%. 4,4′-DDT was not detected in the parent sample, thus no qualification of the parent sample for precision was necessary.

Reporting Limits

Reporting limits and detected concentrations were adjusted for sample volume values. All compound reporting limits (RL) met the QAPP target RL.

Calculation Verification

Several compound quantitation (from QC samples) and reporting limit results were verified by recalculation. No transcription or calculation errors were found.

The chromatograms were reviewed for each sample. No false negatives or false positives were found. The reporting limits were adjusted for sample size and percent total solids.

IV. OVERALL ASSESSMENT OF THE DATA

As determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the surrogate, MS/MSD, and LCS/LCSD recovery values. Precision was acceptable, as demonstrated by the field duplicate, LCS/LCSD, and MS/MSD RPD values, with the noted exception.

No data were qualified for any reason.

All data, as reported, are acceptable for use.

DATA VALIDATION REPORT
Port of Seattle
Duwamish East Waterway Recontamination Monitoring
PCB Aroclors by SW846 Method 8082
SDG: IZ26

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Full validation (Level IV) was performed on all samples. Refer to the **Sample Index** for a list of samples reviewed.

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Ten percent of the results were verified.

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

1	Holding Times and Sample Preservation		Laboratory Control Samples (LCS)
	Initial Calibration (ICAL)	1	Field Duplicates
	Continuing Calibration (CCAL)		Internal Standards
	Laboratory Blanks	1	Compound Identification
1	Field Blanks	2	Reporting Limits (MDL and MRL)
	Surrogate Compounds	1	Calculation Verification
	Matrix Spikes/Matrix Spike Duplicates (MS/MSD)		

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Holding Times and Sample Preservation

Two of the three sample coolers were received at the laboratory with temperatures outside the advisory control limits of 2° to 6°C, at -12 º and -2 º. Since the samples were preserved by freezing at or below -20 ºC, the outliers were judged to have no impact on the data and no action was taken.

All samples were extracted and analyzed within the QAPP specified holding times for frozen sediments.

Field Blanks

Sample EW-RM06-3-RB was submitted as a field blank. No positive results were reported.

Field Duplicates

Samples EW-RM06-16 and EW-RM06-101 were submitted as field duplicates. The relative percent difference (RPD) value for Aroclor 1260 was greater than the control limit of 50%, at 55.6%. No data were qualified based on field duplicate precision outliers; however users of the data should consider the impact of field precision outliers on the reported results.

Compound Identification

All Aroclor identifications were reviewed and were found to be appropriate.

Reporting Limits (Method Detection Limit and Method Reporting Limit

Several samples were extracted with reduced sample sizes due to the high levels of Aroclors present in the samples. Reporting limits were elevated accordingly and no action was taken. Additionally, the laboratory elevated reporting limits for one or more Aroclors in most samples due to interferences.

The values for Aroclor 1260 exceeded the linear range of the calibration in Samples EW-RM06-04 and EW-RM06-19. These samples were diluted and re-analyzed; the laboratory reported the results for both analyses. The Aroclor values that exceeded the linear range were rejected (R-20). Results for all other Aroclors were rejected (R-11) in the dilution analyses. After qualification, one usable result remains for each Aroclor in every sample.

Calculation Verification

Several Aroclor results were verified by recalculation from the raw data. No calculation errors were found. One transcription error was noted, the Form 8 for the analytical sequence on the RTX-5 column used incorrect areas for the internal standard evaluation. The areas of the sample and CCAL internal standards were compared to the correct areas and all internal standard areas were acceptable. No further action was taken.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the surrogate, laboratory control sample, and matrix spike/matrix spike duplicate (MS/MSD) percent recovery values. Precision was acceptable as demonstrated by the RPD values for the MS/MSD and field duplicate analyses, with the exception noted above

Data were rejected in order to report the most appropriate result from multiple dilutions. A usable result remains for all analytes in all samples.

Data that have been rejected should not be used for any purpose. All other data, as reported, are acceptable for use.

DATA VALIDATION REPORT
Port of Seattle
Duwamish East Waterway Recontamination Monitoring
Total Metals by 6010B and Mercury by 7471A
SDG: IZ26

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory and field quality control (QC) samples. Analytical Resources, Inc., Tukwila, Washington, analyzed the samples. Full validation (Level IV) was performed on all samples. Refer to the **SAMPLE INDEX** for a list of the individual samples.

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Ten percent of the results were verified. No errors were found.

III. TECHNICAL DATA VALIDATION

The quality control (QC) requirements for review are listed below.

1	Holding Times and Sample Preservation		Laboratory Duplicates
	Initial Calibration (ICAL)		ICP Interference Check Samples
	Calibration Verification (CVER)		Serial Dilutions
	CRDL Standard	1	Field Duplicates
	Laboratory Blanks		Reporting Limits (MDL and MRL)
	Laboratory Control Samples	1	Reported Results
1	Field Blanks	1	Calculation Verification
2	Matrix Spike Samples		

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[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Holding Times and Sample Preservation

Two of the three sample coolers were received at the laboratory with temperatures outside the advisory control limits of 2° to 6°C, at -12 ºC and -2 ºC Since the samples were preserved by freezing at or below -20 ºC, the outliers were judged to have no impact on the data and no action was taken.

Field Blanks

One rinsate blank, EW-RM06-3-RB, was submitted with this SDG. After qualification for laboratory blank contamination, positive results remained for copper and zinc. To evaluate the effect on the samples, action levels of five times the blank concentrations were established. All copper and zinc results were greater than the action level; therefore no qualification of data was necessary.

Matrix Spike Samples

Matrix spikes (MS) were analyzed at the proper frequency of one per 20 samples or one per batch; whichever was more frequent. The percent recovery (%R) values were within the control limits of 75%-125%, with the exceptions noted below. Control limits do not apply when the sample concentration is greater than four times the spiking level. For %R values greater than the upper control limit, the associated positive results were estimated (J-8) to indicate a possible high bias. No action was taken for non-detects. For %R values less than the lower control limit, the associated positive results and non-detects were qualified as estimated (J/UJ-8) to indicate a possible low bias.

The recoveries for antimony for both sediment matrix spike samples were less than 30%. Antimony was not detected in any sample. The lab did not originally analyze post digestion spikes; the analysis of these samples was requested at a later date. All post digestion spike recoveries were within the control limits of 75%-125%; therefore the antimony results were estimated (UJ-8) as per NFG guidelines instead of being rejected.

Field Duplicates

The data for one set of field duplicates, EW-RM06-16 & EW-RM06-101, were submitted. The relative percent difference (RPD) values were less than the control limit of 50%. Field precision was acceptable.

Reported Results

The results for the method blanks in the EDDs did not match the hardcopy. Corrections were made to the EDD and no further action was taken.

Calculation Verification

Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical methods. The laboratory and field duplicate RPD values indicated acceptable precision. Accuracy was also acceptable, as demonstrated by the MS and LCS %R values, except as noted above.

Data were qualified as estimated based on matrix spike %R outliers.

All data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
Port of Seattle
Duwamish East Waterway Recontamination Monitoring
Conventionals Analyses
SDG: IZ26

This report documents the review of analytical data from the analysis of sediment samples and the associated laboratory and field quality control (QC) samples. Analytical Resources, Inc., Tukwila, Washington, analyzed the samples. Full validation (Level IV) was performed on all samples. Refer to the **SAMPLE INDEX** for a list of the individual samples.

The analytical tests that were performed are summarized below:

Parameter	Method
Total Solids	160.3
Grain Size	PSEP 1986
Total Organic Carbon (TOC)	Plumb, 1981 & EPA 415.1(water)

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Ten percent of the results were verified. No errors were found.

III. TECHNICAL DATA VALIDATION

The quality control (QC) requirements for review are listed below.

1	Holding Times and Sample Preservation		Laboratory Duplicates and Triplicates
	Initial Calibration (ICAL)		ICP Interference Check Samples
	Calibration Verification		Serial Dilutions
	CRDL Standard	1	Field Replicates
	Laboratory Blanks		Reporting Limits (MDL and MRL)
	Laboratory Control Samples		Reported Results
	Matrix Spikes	1	Calculation Verification

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[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Holding Times and Sample Preservation

Two of the three sample coolers were received at the laboratory with temperatures outside the advisory control limits of 2° to 6°C, at -12 ºC and -2 ºC; the jars for grain size were kept refrigerated prior to delivery to the laboratory. The outliers were judged to have no impact on the data and no action was taken.

Field Duplicates

The data for one set of field duplicates, EW-RM06-16 & EW-RM06-101, were submitted. The relative percent difference (RPD) values were less than the control limit of 50%. Field precision was acceptable.

Calculation Verification

Several results were verified by recalculation. No calculation or transcription errors were noted.

IV. OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical methods. The laboratory triplicate percent relative standard deviation, laboratory duplicate RPD, and field duplicate RPD values indicated acceptable precision. Accuracy was also acceptable, as demonstrated by the matrix spike and laboratory control sample percent recovery values.

No data were qualified for any reason. All data, as reported, are acceptable for use.

QUALIFIED DATA SUMMARY TABLE
Port of Seattle
Duwamish East Waterway Recontamination Monitoring

Sample ID	Laboratory ID	Method	Analyte	Result	Unit	Laboratory Qualifier	Validation Qualifier	Reason Code
EW-RM06-01	06-1115-IZ26A	SW6010B	Antimony	7	mg/kg	U	UJ	8
EW-RM06-01	06-1115-IZ26A	PSDDA SW8270	3-Nitroaniline	98	ug/kg	U	UJ	5B
EW-RM06-01	06-1115-IZ26A	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B
EW-RM06-01	06-1115-IZ26A	PSDDA SW8270	4-Nitroaniline	98	ug/kg	U	UJ	5B
EW-RM06-02	06-1116-IZ26B	SW6010B	Antimony	6	mg/kg	U	UJ	8
EW-RM06-02	06-1116-IZ26B	PSDDA SW8270	3-Nitroaniline	99	ug/kg	U	UJ	5B
EW-RM06-02	06-1116-IZ26B	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B
EW-RM06-02	06-1116-IZ26B	PSDDA SW8270	4-Nitroaniline	99	ug/kg	U	UJ	5B
EW-RM06-16	06-1117-IZ26C	SW6010B	Antimony	7	mg/kg	U	UJ	8
EW-RM06-16	06-1117-IZ26C	PSDDA SW8270	3-Nitroaniline	100	ug/kg	U	UJ	5B
EW-RM06-16	06-1117-IZ26C	PSDDA SW8270	4-Nitroaniline	100	ug/kg	U	UJ	5B
EW-RM06-16	06-1136-IZ26C	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B
EW-RM06-101	06-1118-IZ26D	PSDDA SW8270	bis(2-Ethylhexyl)phthalate	210	ug/kg		R	11
EW-RM06-101	06-1118-IZ26D	PSDDA SW8270	Chrysene	160	ug/kg		R	11
EW-RM06-101	06-1118-IZ26D	SW6010B	Antimony	7	mg/kg	U	UJ	8
EW-RM06-101	06-1118-IZ26D	PSDDA SW8270	3-Nitroaniline	98	ug/kg	U	UJ	5B
EW-RM06-101	06-1118-IZ26D	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B
EW-RM06-101	06-1118-IZ26D	PSDDA SW8270	4-Nitroaniline	98	ug/kg	U	UJ	5B
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Phenol	420	ug/kg		R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Bis-(2-Chloroethyl) Ether	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	2-Chlorophenol	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	1,3-Dichlorobenzene	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	1,4-Dichlorobenzene	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Benzyl Alcohol	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	1,2-Dichlorobenzene	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	2-Methylphenol	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	2,2'-Oxybis(1-Chloropropane)	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	4-Methylphenol	89	ug/kg	J	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	N-Nitroso-Di-N-Propylamine	490	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Hexachloroethane	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Nitrobenzene	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Isophorone	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	2-Nitrophenol	490	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	2,4-Dimethylphenol	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Benzoic Acid	980	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	bis(2-Chloroethoxy) Methane	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	2,4-Dichlorophenol	490	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	1,2,4-Trichlorobenzene	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Naphthalene	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	4-Chloroaniline	490	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Hexachlorobutadiene	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	4-Chloro-3-methylphenol	490	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	2-Methylnaphthalene	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Hexachlorocyclopentadiene	490	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	2,4,6-Trichlorophenol	490	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	2,4,5-Trichlorophenol	490	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	2-Chloronaphthalene	98	ug/kg	U	R	11

QUALIFIED DATA SUMMARY TABLE
Port of Seattle
Duwamish East Waterway Recontamination Monitoring

Sample ID	Laboratory ID	Method	Analyte	Result	Unit	Laboratory Qualifier	Validation Qualifier	Reason Code
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	2-Nitroaniline	490	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Dimethylphthalate	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Acenaphthylene	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	3-Nitroaniline	490	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Acenaphthene	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	2,4-Dinitrophenol	980	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	4-Nitrophenol	490	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Dibenzofuran	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	2,6-Dinitrotoluene	490	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	2,4-Dinitrotoluene	490	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Diethylphthalate	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	4-Chlorophenyl-phenylether	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Fluorene	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	4-Nitroaniline	490	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	4,6-Dinitro-2-Methylphenol	980	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	N-Nitrosodiphenylamine	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	4-Bromophenyl-phenylether	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Hexachlorobenzene	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Pentachlorophenol	490	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Phenanthrene	93	ug/kg	J	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Carbazole	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Anthracene	61	ug/kg	J	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Di-n-Butylphthalate	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Fluoranthene	250	ug/kg		R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Pyrene	210	ug/kg		R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Butylbenzylphthalate	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	3,3'-Dichlorobenzidine	490	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Benzo(a)anthracene	100	ug/kg		R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Di-n-Octyl phthalate	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Benzo(b)fluoranthene	150	ug/kg		R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Benzo(k)fluoranthene	100	ug/kg		R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Benzo(a)pyrene	110	ug/kg		R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Indeno(1,2,3-cd)pyrene	61	ug/kg	J	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Dibenz(a,h)anthracene	98	ug/kg	U	R	11
EW-RM06-101DL	06-1118-IZ26DDL	PSDDA SW8270	Benzo(g,h,i)perylene	69	ug/kg	J	R	11
EW-RM06-24	06-1119-IZ26E	SW6010B	Antimony	7	mg/kg	U	UJ	8
EW-RM06-24	06-1119-IZ26E	PSDDA SW8270	3-Nitroaniline	99	ug/kg	U	UJ	5B
EW-RM06-24	06-1119-IZ26E	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B
EW-RM06-24LR	06-1119-IZ26E	SW6010B	Antimony	7	mg/kg	U	UJ	8
EW-RM06-24	06-1120-IZ26F	PSDDA SW8270	4-Nitroaniline	99	ug/kg	U	UJ	5B
EW-RM06-25	06-1120-IZ26F	SW6010B	Antimony	8	mg/kg	U	UJ	8
EW-RM06-25	06-1120-IZ26F	PSDDA SW8270	3-Nitroaniline	99	ug/kg	U	UJ	5B
EW-RM06-25	06-1120-IZ26F	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B
EW-RM06-15	06-1121-IZ26G	SW6010B	Antimony	8	mg/kg	U	UJ	8
EW-RM06-15	06-1121-IZ26G	PSDDA SW8270	Benzyl Alcohol	39	ug/kg	U	UJ	5B
EW-RM06-15	06-1121-IZ26G	PSDDA SW8270	2,4-Dinitrophenol	390	ug/kg	U	UJ	5B
EW-RM06-25	06-1121-IZ26G	PSDDA SW8270	4-Nitroaniline	99	ug/kg	U	UJ	5B

QUALIFIED DATA SUMMARY TABLE
Port of Seattle
Duwamish East Waterway Recontamination Monitoring

Sample ID	Laboratory ID	Method	Analyte	Result	Unit	Laboratory Qualifier	Validation Qualifier	Reason Code
EW-RM06-15	06-1122-IZ26H	PSDDA SW8270	4,6-Dinitro-2-Methylphenol	390	ug/kg	U	UJ	5B
EW-RM06-28	06-1122-IZ26H	SW6010B	Antimony	6	mg/kg	U	UJ	8
EW-RM06-28	06-1122-IZ26H	PSDDA SW8270	Benzyl Alcohol	20	ug/kg	U	UJ	5B
EW-RM06-28	06-1122-IZ26H	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B
EW-RM06-26	06-1123-IZ26I	SW6010B	Antimony	6	mg/kg	U	UJ	8
EW-RM06-26	06-1123-IZ26I	PSDDA SW8270	Benzyl Alcohol	20	ug/kg	U	UJ	5B
EW-RM06-26	06-1123-IZ26I	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B
EW-RM06-28	06-1123-IZ26I	PSDDA SW8270	4,6-Dinitro-2-Methylphenol	200	ug/kg	U	UJ	5B
EW-RM06-23	06-1124-IZ26J	SW6010B	Antimony	7	mg/kg	U	UJ	8
EW-RM06-23	06-1124-IZ26J	PSDDA SW8270	Benzyl Alcohol	20	ug/kg	U	UJ	5B
EW-RM06-23	06-1124-IZ26J	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B
EW-RM06-26	06-1124-IZ26J	PSDDA SW8270	4,6-Dinitro-2-Methylphenol	200	ug/kg	U	UJ	5B
EW-RM06-20	06-1125-IZ26K	SW6010B	Antimony	5	mg/kg	U	UJ	8
EW-RM06-20	06-1125-IZ26K	PSDDA SW8270	Benzyl Alcohol	20	ug/kg	U	UJ	5B
EW-RM06-20	06-1125-IZ26K	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B
EW-RM06-23	06-1125-IZ26K	PSDDA SW8270	4,6-Dinitro-2-Methylphenol	200	ug/kg	U	UJ	5B
EW-RM06-18	06-1126-IZ26L	SW6010B	Antimony	5	mg/kg	U	UJ	8
EW-RM06-18	06-1126-IZ26L	PSDDA SW8270	Benzyl Alcohol	20	ug/kg	U	UJ	5B
EW-RM06-18	06-1126-IZ26L	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B
EW-RM06-20	06-1126-IZ26L	PSDDA SW8270	4,6-Dinitro-2-Methylphenol	200	ug/kg	U	UJ	5B
EW-RM06-18	06-1127-IZ26M	PSDDA SW8270	4,6-Dinitro-2-Methylphenol	200	ug/kg	U	UJ	5B
EW-RM06-3	06-1128-IZ26N	SW6010B	Antimony	6	mg/kg	U	UJ	8
EW-RM06-3	06-1128-IZ26N	PSDDA SW8270	3-Nitroaniline	97	ug/kg	U	UJ	5B
EW-RM06-3	06-1128-IZ26N	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B
EW-RM06-3-RB	06-1128-IZ26N	SW8270D	2,4-Dinitrophenol	10	ug/L	U	UJ	5B
EW-RM06-3	06-1129-IZ26O	PSDDA SW8270	4-Nitroaniline	97	ug/kg	U	UJ	5B
EW-RM06-4	06-1129-IZ26O	PSDDA SW8082	Aroclor 1260	2100	ug/kg	E	R	20
EW-RM06-4	06-1129-IZ26O	SW6010B	Antimony	7	mg/kg	U	UJ	8
EW-RM06-4	06-1129-IZ26O	PSDDA SW8270	3-Nitroaniline	100	ug/kg	U	UJ	5B
EW-RM06-4	06-1129-IZ26O	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B
EW-RM06-4	06-1129-IZ26ODL	PSDDA SW8082	Aroclor 1016	560	ug/kg	U	R	11
EW-RM06-4	06-1129-IZ26ODL	PSDDA SW8082	Aroclor 1242	560	ug/kg	U	R	11
EW-RM06-4	06-1129-IZ26ODL	PSDDA SW8082	Aroclor 1248	560	ug/kg	U	R	11
EW-RM06-4	06-1129-IZ26ODL	PSDDA SW8082	Aroclor 1254	890	ug/kg	Y	R	11
EW-RM06-4	06-1129-IZ26ODL	PSDDA SW8082	Aroclor 1221	560	ug/kg	U	R	11
EW-RM06-4	06-1129-IZ26ODL	PSDDA SW8082	Aroclor 1232	560	ug/kg	U	R	11
EW-RM06-4	06-1130-IZ26P	PSDDA SW8270	4-Nitroaniline	100	ug/kg	U	UJ	5B
EW-RM06-5	06-1130-IZ26P	SW6010B	Antimony	7	mg/kg	U	UJ	8
EW-RM06-5	06-1130-IZ26P	PSDDA SW8270	3-Nitroaniline	98	ug/kg	U	UJ	5B
EW-RM06-5	06-1130-IZ26P	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B
EW-RM06-5	06-1131-IZ26Q	PSDDA SW8270	4-Nitroaniline	98	ug/kg	U	UJ	5B
EW-RM06-6	06-1131-IZ26Q	SW6010B	Antimony	7	mg/kg	U	UJ	8
EW-RM06-6	06-1131-IZ26Q	PSDDA SW8270	3-Nitroaniline	97	ug/kg	U	UJ	5B
EW-RM06-6	06-1131-IZ26Q	PSDDA SW8270	2,4-Dinitrophenol	190	ug/kg	U	UJ	B5
EW-RM06-6	06-1132-IZ26R	PSDDA SW8270	4-Nitroaniline	97	ug/kg	U	UJ	5B
EW-RM06-7	06-1132-IZ26R	SW6010B	Antimony	7	mg/kg	U	UJ	8
EW-RM06-7	06-1132-IZ26R	PSDDA SW8270	Benzyl Alcohol	20	ug/kg	U	UJ	5B

QUALIFIED DATA SUMMARY TABLE
Port of Seattle
Duwamish East Waterway Recontamination Monitoring

Sample ID	Laboratory ID	Method	Analyte	Result	Unit	Laboratory Qualifier	Validation Qualifier	Reason Code
EW-RM06-7	06-1132-IZ26R	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B
EW-RM06-7	06-1133-IZ26S	PSDDA SW8270	4,6-Dinitro-2-Methylphenol	200	ug/kg	U	UJ	5B
EW-RM06-8	06-1133-IZ26S	SW6010B	Antimony	6	mg/kg	U	UJ	8
EW-RM06-8	06-1133-IZ26S	PSDDA SW8270	Benzyl Alcohol	20	ug/kg	U	UJ	5B
EW-RM06-8	06-1133-IZ26S	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B
EW-RM06-10	06-1134-IZ26T	SW6010B	Antimony	7	mg/kg	U	UJ	8
EW-RM06-10	06-1134-IZ26T	PSDDA SW8270	Benzyl Alcohol	20	ug/kg	U	UJ	5B
EW-RM06-10	06-1134-IZ26T	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B
EW-RM06-8	06-1134-IZ26T	PSDDA SW8270	4,6-Dinitro-2-Methylphenol	200	ug/kg	U	UJ	5B
EW-RM06-10	06-1135-IZ26U	PSDDA SW8270	4,6-Dinitro-2-Methylphenol	200	ug/kg	U	UJ	5B
EW-RM06-19	06-1135-IZ26U	PSDDA SW8082	Aroclor 1260	320	ug/kg	E	R	20
EW-RM06-19	06-1135-IZ26U	SW6010B	Antimony	7	mg/kg	U	UJ	8
EW-RM06-19	06-1135-IZ26U	PSDDA SW8270	Benzyl Alcohol	20	ug/kg	U	UJ	5B
EW-RM06-19	06-1135-IZ26U	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B
EW-RM06-19	06-1135-IZ26UDL	PSDDA SW8082	Aroclor 1016	96	ug/kg	U	R	11
EW-RM06-19	06-1135-IZ26UDL	PSDDA SW8082	Aroclor 1242	96	ug/kg	U	R	11
EW-RM06-19	06-1135-IZ26UDL	PSDDA SW8082	Aroclor 1248	96	ug/kg	U	R	11
EW-RM06-19	06-1135-IZ26UDL	PSDDA SW8082	Aroclor 1254	140	ug/kg	Y	R	11
EW-RM06-19	06-1135-IZ26UDL	PSDDA SW8082	Aroclor 1221	96	ug/kg	U	R	11
EW-RM06-19	06-1135-IZ26UDL	PSDDA SW8082	Aroclor 1232	96	ug/kg	U	R	11
EW-RM06-19	06-1136-IZ26V	PSDDA SW8270	4,6-Dinitro-2-Methylphenol	200	ug/kg	U	UJ	5B
EW-RM06-21	06-1136-IZ26V	SW6010B	Antimony	7	mg/kg	U	UJ	8
EW-RM06-21	06-1136-IZ26V	PSDDA SW8270	Benzyl Alcohol	19	ug/kg	U	UJ	5B
EW-RM06-21	06-1136-IZ26V	PSDDA SW8270	4,6-Dinitro-2-Methylphenol	190	ug/kg	U	UJ	5B
EW-RM06-21LR	06-1136-IZ26V	SW6010B	Antimony	7	mg/kg	U	UJ	8
EW-RM06-21	06-1117-IZ26V	PSDDA SW8270	2,4-Dinitrophenol	190	ug/kg	U	UJ	5B
EW-RM06-16	06-1136-IZ26C	PSDDA SW8270	2,4-Dinitrophenol	200	ug/kg	U	UJ	5B

APPENDIX D. LABORATORY FORM 1S

Metals

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-01
SAMPLE

Lab Sample ID: IZ26A
LIMS ID: 06-1115
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Percent Total Solids: 66.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	7	7	U
3050B	01/30/06	6010B	02/01/06	7440-38-2	Arsenic	7	7	U
3050B	01/30/06	6010B	02/01/06	**7440-43-9**	**Cadmium**	0.3	**0.5**	
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.7	**22.0**	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.3	**38.7**	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	3	**27**	
CLP	01/30/06	7471A	02/03/06	**7439-97-6**	**Mercury**	0.06	**0.17**	
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	**14**	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.4	0.4	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.9	**68.7**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-02
SAMPLE

Lab Sample ID: IZ26B
LIMS ID: 06-1116
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Percent Total Solids: 83.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	6	6	U
3050B	01/30/06	6010B	02/01/06	7440-38-2	Arsenic	6	6	U
3050B	01/30/06	6010B	02/01/06	7440-43-9	Cadmium	0.2	0.2	U
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.6	**22.8**	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.2	**26.5**	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	2	**10**	
CLP	01/30/06	7471A	02/03/06	**7439-97-6**	**Mercury**	0.04	**0.06**	
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	**25**	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.3	0.3	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.7	**48.7**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-3
SAMPLE

Lab Sample ID: IZ26N
LIMS ID: 06-1128
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Percent Total Solids: 83.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	6	6	U
3050B	01/30/06	6010B	02/01/06	7440-38-2	Arsenic	6	6	U
3050B	01/30/06	6010B	02/01/06	7440-43-9	Cadmium	0.2	0.2	U
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.6	**24.1**	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.2	**17.1**	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	2	**5**	
CLP	01/30/06	7471A	02/03/06	7439-97-6	Mercury	0.05	0.05	U
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	**19**	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.3	0.3	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.7	**36.6**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-4
SAMPLE

Lab Sample ID: IZ26O
LIMS ID: 06-1129
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Percent Total Solids: 69.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	7	7	U
3050B	01/30/06	6010B	02/01/06	7440-38-2	Arsenic	7	7	U
3050B	01/30/06	6010B	02/01/06	**7440-43-9**	**Cadmium**	0.3	**0.4**	
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.7	**19.9**	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.3	**34.8**	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	3	**23**	
CLP	01/30/06	7471A	02/03/06	**7439-97-6**	**Mercury**	0.05	**0.15**	
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	**16**	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.4	0.4	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.8	**62.3**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW-RM06-5
SAMPLE

Lab Sample ID: IZ26P
LIMS ID: 06-1130
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Percent Total Solids: 70.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	7	7	U
3050B	01/30/06	6010B	02/01/06	7440-38-2	Arsenic	7	7	U
3050B	01/30/06	6010B	02/01/06	7440-43-9	Cadmium	0.3	0.3	U
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.7	**20.7**	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.3	**33.2**	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	3	**17**	
CLP	01/30/06	7471A	02/03/06	**7439-97-6**	**Mercury**	0.05	**0.13**	
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	**18**	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.4	0.4	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.8	52.7	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-6
SAMPLE

Lab Sample ID: IZ26Q
LIMS ID: 06-1131
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Percent Total Solids: 70.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	7	7	U
3050B	01/30/06	6010B	02/01/06	7440-38-2	Arsenic	7	7	U
3050B	01/30/06	6010B	02/01/06	**7440-43-9**	**Cadmium**	0.3	**0.4**	
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.7	**18.6**	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.3	**33.4**	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	3	**19**	
CLP	01/30/06	7471A	02/03/06	**7439-97-6**	**Mercury**	0.06	**0.13**	
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	**18**	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.4	0.4	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.8	**58.1**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-7
SAMPLE

Lab Sample ID: IZ26R
LIMS ID: 06-1132
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Percent Total Solids: 67.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	7	7	U
3050B	01/30/06	6010B	02/01/06	7440-38-2	Arsenic	7	7	U
3050B	01/30/06	6010B	02/01/06	**7440-43-9**	**Cadmium**	0.3	**0.3**	
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.7	**21.1**	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.3	**33.8**	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	3	**22**	
CLP	01/30/06	7471A	02/03/06	**7439-97-6**	**Mercury**	0.07	**0.12**	
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	**16**	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.4	0.4	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.9	**60.0**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-8
SAMPLE

Lab Sample ID: IZ26S
LIMS ID: 06-1133
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Percent Total Solids: 81.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	6	6	U
3050B	01/30/06	6010B	02/01/06	7440-38-2	Arsenic	6	6	U
3050B	01/30/06	6010B	02/01/06	7440-43-9	Cadmium	0.2	0.2	U
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.6	**17.7**	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.2	**17.3**	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	2	**6**	
CLP	01/30/06	7471A	02/03/06	7439-97-6	Mercury	0.05	0.05	U
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	**19**	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.4	0.4	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.7	**36.3**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-10
SAMPLE

Lab Sample ID: IZ26T
LIMS ID: 06-1134
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Percent Total Solids: 67.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	7	7	U
3050B	01/30/06	6010B	02/01/06	**7440-38-2**	**Arsenic**	7	8	
3050B	01/30/06	6010B	02/01/06	**7440-43-9**	**Cadmium**	0.3	0.3	
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.7	22.7	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.3	42.4	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	3	23	
CLP	01/30/06	7471A	02/03/06	**7439-97-6**	**Mercury**	0.07	0.67	
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	21	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.4	0.4	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.8	66.4	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-15
SAMPLE

Lab Sample ID: IZ26G
LIMS ID: 06-1121
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Percent Total Solids: 57.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	8	8	U
3050B	01/30/06	6010B	02/01/06	**7440-38-2**	**Arsenic**	8	11	
3050B	01/30/06	6010B	02/01/06	**7440-43-9**	**Cadmium**	0.3	2.4	
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.8	43.9	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.3	78.4	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	3	131	
CLP	01/30/06	7471A	02/03/06	**7439-97-6**	**Mercury**	0.06	0.78	
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	2	26	
3050B	01/30/06	6010B	02/01/06	**7440-22-4**	**Silver**	0.5	2.2	
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	1	249	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-16
SAMPLE

Lab Sample ID: IZ26C
LIMS ID: 06-1117
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Percent Total Solids: 72.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	7	7	U
3050B	01/30/06	6010B	02/01/06	**7440-38-2**	**Arsenic**	7	8	
3050B	01/30/06	6010B	02/01/06	**7440-43-9**	**Cadmium**	0.3	0.4	
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.7	23.5	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.3	33.2	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	3	26	
CLP	01/30/06	7471A	02/03/06	**7439-97-6**	**Mercury**	0.05	0.16	
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	21	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.4	0.4	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.8	70.3	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-101
SAMPLE

Lab Sample ID: IZ26D
LIMS ID: 06-1118
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Percent Total Solids: 73.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	7	7	U
3050B	01/30/06	6010B	02/01/06	**7440-38-2**	**Arsenic**	7	**7**	
3050B	01/30/06	6010B	02/01/06	**7440-43-9**	**Cadmium**	0.3	**0.4**	
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.7	**22.0**	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.3	**39.2**	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	3	**25**	
CLP	01/30/06	7471A	02/03/06	**7439-97-6**	**Mercury**	0.05	**0.15**	
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	**19**	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.4	0.4	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.8	**74.8**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-18
SAMPLE

Lab Sample ID: IZ26L
LIMS ID: 06-1126
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Percent Total Solids: 91.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	5	5	U
3050B	01/30/06	6010B	02/01/06	7440-38-2	Arsenic	5	5	U
3050B	01/30/06	6010B	02/01/06	7440-43-9	Cadmium	0.2	0.2	U
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.5	**18.1**	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.2	**14.9**	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	2	**3**	
CLP	01/30/06	7471A	02/03/06	7439-97-6	Mercury	0.04	0.04	U
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	**17**	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.3	0.3	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.7	**29.9**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-19
SAMPLE

Lab Sample ID: IZ26U
LIMS ID: 06-1135
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Percent Total Solids: 70.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	7	7	U
3050B	01/30/06	6010B	02/01/06	**7440-38-2**	**Arsenic**	7	**7**	
3050B	01/30/06	6010B	02/01/06	**7440-43-9**	**Cadmium**	0.3	**0.5**	
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.7	**22.4**	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.3	**35.3**	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	3	**34**	
CLP	01/30/06	7471A	02/03/06	**7439-97-6**	**Mercury**	0.06	**0.38**	
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	**20**	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.4	0.4	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.8	**74.8**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-20
SAMPLE

Lab Sample ID: IZ26K
LIMS ID: 06-1125
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Percent Total Solids: 86.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	5	5	U
3050B	01/30/06	6010B	02/01/06	**7440-38-2**	**Arsenic**	5	**6**	
3050B	01/30/06	6010B	02/01/06	7440-43-9	Cadmium	0.2	0.2	U
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.5	**15.7**	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.2	**17.2**	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	2	**5**	
CLP	01/30/06	7471A	02/03/06	7439-97-6	Mercury	0.05	0.05	U
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	**18**	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.3	0.3	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.7	**33.4**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-21
SAMPLE

Lab Sample ID: IZ26V
LIMS ID: 06-1136
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Percent Total Solids: 73.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	7	7	U
3050B	01/30/06	6010B	02/01/06	**7440-38-2**	**Arsenic**	7	8	
3050B	01/30/06	6010B	02/01/06	**7440-43-9**	**Cadmium**	0.3	0.4	
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.7	21.2	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.3	35.4	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	3	22	
CLP	01/30/06	7471A	02/03/06	**7439-97-6**	**Mercury**	0.06	0.17	
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	18	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.4	0.4	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.8	69.5	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW-RM06-21
DUPLICATE

Lab Sample ID: IZ26V
LIMS ID: 06-1136
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	6010B	7 U	7 U	0.0%	+/- 7	L
Arsenic	6010B	8	8	0.0%	+/- 7	L
Cadmium	6010B	0.4	0.3	28.6%	+/- 0.3	L
Chromium	6010B	21.2	21.0	0.9%	+/- 20%	
Copper	6010B	35.4	34.5	2.6%	+/- 20%	
Lead	6010B	22	21	4.7%	+/- 20%	
Mercury	7471A	0.17	0.17	0.0%	+/- 0.06	L
Nickel	6010B	18	18	0.0%	+/- 20%	
Silver	6010B	0.4 U	0.4 U	0.0%	+/- 0.4	L
Zinc	6010B	69.5	63.6	8.9%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-23
SAMPLE

Lab Sample ID: IZ26J
LIMS ID: 06-1124
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Percent Total Solids: 73.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	7	7	U
3050B	01/30/06	6010B	02/01/06	**7440-38-2**	**Arsenic**	7	**8**	
3050B	01/30/06	6010B	02/01/06	7440-43-9	Cadmium	0.3	0.3	U
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.7	**23.6**	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.3	**30.3**	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	3	**16**	
CLP	01/30/06	7471A	02/03/06	**7439-97-6**	**Mercury**	0.06	**0.21**	
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	**25**	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.4	0.4	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.8	**54.3**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-24
SAMPLE

Lab Sample ID: IZ26E
LIMS ID: 06-1119
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Percent Total Solids: 66.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	7	7	U
3050B	01/30/06	6010B	02/01/06	7440-38-2	Arsenic	7	7	U
3050B	01/30/06	6010B	02/01/06	**7440-43-9**	**Cadmium**	0.3	**0.6**	
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.7	**21.0**	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.3	**29.3**	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	3	**25**	
CLP	01/30/06	7471A	02/03/06	**7439-97-6**	**Mercury**	0.07	**0.26**	
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	**17**	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.4	0.4	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.9	**71.0**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EW-RM06-24
DUPLICATE

Lab Sample ID: IZ26E
LIMS ID: 06-1119
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	6010B	7 U	7 U	0.0%	+/- 7	L
Arsenic	6010B	7 U	7	0.0%	+/- 7	L
Cadmium	6010B	0.6	0.6	0.0%	+/- 0.3	L
Chromium	6010B	21.0	20.4	2.9%	+/- 20%	
Copper	6010B	29.3	31.0	5.6%	+/- 20%	
Lead	6010B	25	29	14.8%	+/- 20%	
Mercury	7471A	0.26	0.29	10.9%	+/- 0.07	L
Nickel	6010B	17	16	6.1%	+/- 20%	
Silver	6010B	0.4 U	0.4 U	0.0%	+/- 0.4	L
Zinc	6010B	71.0	69.1	2.7%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-25
SAMPLE

Lab Sample ID: IZ26F
LIMS ID: 06-1120
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Percent Total Solids: 57.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	8	8	U
3050B	01/30/06	6010B	02/01/06	**7440-38-2**	**Arsenic**	8	**11**	
3050B	01/30/06	6010B	02/01/06	**7440-43-9**	**Cadmium**	0.3	**0.7**	
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.8	**30.1**	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.3	**49.1**	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	3	**39**	
CLP	01/30/06	7471A	02/03/06	**7439-97-6**	**Mercury**	0.06	**0.33**	
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	2	**22**	
3050B	01/30/06	6010B	02/01/06	**7440-22-4**	**Silver**	0.5	**0.5**	
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	1	**95**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-26
SAMPLE

Lab Sample ID: IZ26I
LIMS ID: 06-1123
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Percent Total Solids: 84.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	6	6	U
3050B	01/30/06	6010B	02/01/06	7440-38-2	Arsenic	6	6	U
3050B	01/30/06	6010B	02/01/06	7440-43-9	Cadmium	0.2	0.2	U
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.6	**19.9**	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.2	**19.1**	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	2	**8**	
CLP	01/30/06	7471A	02/03/06	7439-97-6	Mercury	0.05	0.05	U
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	**22**	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.3	0.3	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.7	**38.4**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-28
SAMPLE

Lab Sample ID: IZ26H
LIMS ID: 06-1122
Matrix: Sediment
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Percent Total Solids: 80.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	01/30/06	6010B	02/01/06	7440-36-0	Antimony	6	6	U
3050B	01/30/06	6010B	02/01/06	**7440-38-2**	**Arsenic**	6	**6**	
3050B	01/30/06	6010B	02/01/06	7440-43-9	Cadmium	0.2	0.2	U
3050B	01/30/06	6010B	02/01/06	**7440-47-3**	**Chromium**	0.6	**20.6**	
3050B	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.2	**22.5**	
3050B	01/30/06	6010B	02/01/06	**7439-92-1**	**Lead**	2	**11**	
CLP	01/30/06	7471A	02/03/06	**7439-97-6**	**Mercury**	0.05	**0.08**	
3050B	01/30/06	6010B	02/01/06	**7440-02-0**	**Nickel**	1	**20**	
3050B	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.4	0.4	U
3050B	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.7	**41.9**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: EW-RM06-3-RB
SAMPLE

Lab Sample ID: IZ26M
LIMS ID: 06-1127
Matrix: Water
Data Release Authorized:
Reported: 02/06/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
3010A	01/30/06	6010B	02/01/06	7440-36-0	Antimony	0.05	0.05	U
3010A	01/30/06	6010B	02/01/06	7440-38-2	Arsenic	0.05	0.05	U
3010A	01/30/06	6010B	02/01/06	7440-43-9	Cadmium	0.002	0.002	U
3010A	01/30/06	6010B	02/01/06	7440-47-3	Chromium	0.005	0.005	U
3010A	01/30/06	6010B	02/01/06	**7440-50-8**	**Copper**	0.002	**0.003**	
3010A	01/30/06	6010B	02/01/06	7439-92-1	Lead	0.02	0.02	U
7470A	01/30/06	7470A	02/01/06	7439-97-6	Mercury	0.0001	0.0001	U
3010A	01/30/06	6010B	02/01/06	7440-02-0	Nickel	0.01	0.01	U
3010A	01/30/06	6010B	02/01/06	7440-22-4	Silver	0.003	0.003	U
3010A	01/30/06	6010B	02/01/06	**7440-66-6**	**Zinc**	0.006	**0.011**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-01
SAMPLE

Lab Sample ID: IZ26A
LIMS ID: 06-1115
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 06:06
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 17.0 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 7.0
Percent Moisture: 32.6%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	29	< 29 U
53469-21-9	Aroclor 1242	29	< 29 U
12672-29-6	Aroclor 1248	44	< 44 Y
11097-69-1	**Aroclor 1254**	**29**	**160**
11096-82-5	**Aroclor 1260**	**29**	**280**
11104-28-2	Aroclor 1221	29	< 29 U
11141-16-5	Aroclor 1232	31	< 31 Y

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	68.0%
Tetrachlorometaxylene	63.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-02
SAMPLE

Lab Sample ID: IZ26B
LIMS ID: 06-1116
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 06:28
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.2 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 6.5
Percent Moisture: 16.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	Aroclor 1248	20	< 20 U
11097-69-1	Aroclor 1254	20	< 20 U
11096-82-5	**Aroclor 1260**	**20**	**39**
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	73.5%
Tetrachlorometaxylene	68.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-3
SAMPLE

Lab Sample ID: IZ26N
LIMS ID: 06-1128
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 12:32
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 26.1 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 7.0
Percent Moisture: 14.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	19	< 19 U
53469-21-9	Aroclor 1242	19	< 19 U
12672-29-6	Aroclor 1248	19	< 19 U
11097-69-1	Aroclor 1254	19	< 19 U
11096-82-5	Aroclor 1260	19	< 19 U
11104-28-2	Aroclor 1221	19	< 19 U
11141-16-5	Aroclor 1232	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	67.5%
Tetrachlorometaxylene	71.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-4
SAMPLE

Lab Sample ID: IZ260
LIMS ID: 06-1129
Matrix: Sediment
Data Release Authorized:
Reported: 02/24/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 12:55
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 8.95 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 6.9
Percent Moisture: 28.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	56	< 56 U
53469-21-9	Aroclor 1242	56	< 56 U
12672-29-6	Aroclor 1248	89	< 89 Y
11097-69-1	Aroclor 1254	1,500	< 1,500 Y
11096-82-5	**Aroclor 1260**	**56**	**2,100 E**
11104-28-2	Aroclor 1221	56	< 56 U
11141-16-5	Aroclor 1232	56	< 56 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	77.0%
Tetrachlorometaxylene	68.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD **Sample ID: EW-RM06-4**
Page 1 of 1 **DILUTION**

Lab Sample ID: IZ260 QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1129 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Data Release Authorized: Date Sampled: 01/24/06
Reported: 02/15/06 Date Received: 01/25/06

Date Extracted: 02/07/06 Sample Amount: 8.95 g-dry-wt
Date Analyzed: 02/13/06 19:54 Final Extract Volume: 5.0 mL
Instrument/Analyst: ECD2/AAR Dilution Factor: 10.0
GPC Cleanup: No Silica Gel: No
Sulfur Cleanup: Yes pH: 6.9
Acid Cleanup: Yes Percent Moisture: 28.4%
Florisil Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	560	< 560 U
53469-21-9	Aroclor 1242	560	< 560 U
12672-29-6	Aroclor 1248	560	< 560 U
11097-69-1	Aroclor 1254	890	< 890 Y
11096-82-5	**Aroclor 1260**	**560**	**2,600**
11104-28-2	Aroclor 1221	560	< 560 U
11141-16-5	Aroclor 1232	560	< 560 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	72.8%
Tetrachlorometaxylene	82.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-5
SAMPLE

Lab Sample ID: IZ26P
LIMS ID: 06-1130
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 13:18
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 9.35 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 7.0
Percent Moisture: 25.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	54	< 54 U
53469-21-9	Aroclor 1242	54	< 54 U
12672-29-6	Aroclor 1248	54	< 54 U
11097-69-1	**Aroclor 1254**	**54**	**94**
11096-82-5	**Aroclor 1260**	**54**	**120**
11104-28-2	Aroclor 1221	54	< 54 U
11141-16-5	Aroclor 1232	54	< 54 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	71.0%
Tetrachlorometaxylene	68.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-6
SAMPLE

Lab Sample ID: IZ26Q
LIMS ID: 06-1131
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 13:40
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 1.84 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 7.1
Percent Moisture: 26.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	270	< 270 U
53469-21-9	Aroclor 1242	270	< 270 U
12672-29-6	Aroclor 1248	270	< 270 U
11097-69-1	Aroclor 1254	270	< 270 U
11096-82-5	**Aroclor 1260**	**270**	**160 J**
11104-28-2	Aroclor 1221	270	< 270 U
11141-16-5	Aroclor 1232	270	< 270 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	70.8%
Tetrachlorometaxylene	74.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-7
SAMPLE

Lab Sample ID: IZ26R
LIMS ID: 06-1132
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 14:03
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 7.0
Percent Moisture: 28.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	19	< 19 U
53469-21-9	Aroclor 1242	19	< 19 U
12672-29-6	Aroclor 1248	29	< 29 Y
11097-69-1	**Aroclor 1254**	**19**	**88**
11096-82-5	**Aroclor 1260**	**19**	**120**
11104-28-2	Aroclor 1221	19	< 19 U
11141-16-5	Aroclor 1232	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	62.0%
Tetrachlorometaxylene	61.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-8
SAMPLE

Lab Sample ID: IZ26S
LIMS ID: 06-1133
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 14:26
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 6.9
Percent Moisture: 13.7%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	19	< 19 U
53469-21-9	Aroclor 1242	19	< 19 U
12672-29-6	Aroclor 1248	19	< 19 U
11097-69-1	**Aroclor 1254**	**19**	**10 J**
11096-82-5	**Aroclor 1260**	**19**	**10 J**
11104-28-2	Aroclor 1221	19	< 19 U
11141-16-5	Aroclor 1232	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	67.2%
Tetrachlorometaxylene	69.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-10
SAMPLE

Lab Sample ID: IZ26T
LIMS ID: 06-1134
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 14:49
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 17.5 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 6.8
Percent Moisture: 31.2%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	28	< 28 U
53469-21-9	Aroclor 1242	28	< 28 U
12672-29-6	Aroclor 1248	28	< 28 U
11097-69-1	**Aroclor 1254**	**28**	**78**
11096-82-5	**Aroclor 1260**	**28**	**120**
11104-28-2	Aroclor 1221	28	< 28 U
11141-16-5	Aroclor 1232	28	< 28 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery	
Decachlorobiphenyl	61.5%
Tetrachlorometaxylene	63.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-15
SAMPLE

Lab Sample ID: IZ26G
LIMS ID: 06-1121
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 09:07
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 1.48 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 7.5
Percent Moisture: 41.9%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	510	< 510 Y
53469-21-9	Aroclor 1242	540	< 540 Y
12672-29-6	Aroclor 1248	680	< 680 Y
11097-69-1	**Aroclor 1254**	**340**	**1,200**
11096-82-5	**Aroclor 1260**	**340**	**1,200**
11104-28-2	Aroclor 1221	340	< 340 U
11141-16-5	Aroclor 1232	780	< 780 Y

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	68.0%
Tetrachlorometaxylene	72.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-16
SAMPLE

Lab Sample ID: IZ26C
LIMS ID: 06-1117
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 06:51
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 18.0 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 6.9
Percent Moisture: 28.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	28	< 28 U
53469-21-9	Aroclor 1242	28	< 28 U
12672-29-6	Aroclor 1248	33	< 33 Y
11097-69-1	**Aroclor 1254**	**28**	**100**
11096-82-5	**Aroclor 1260**	**28**	**130**
11104-28-2	Aroclor 1221	28	< 28 U
11141-16-5	Aroclor 1232	28	< 28 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	66.5%
Tetrachlorometaxylene	63.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-101
SAMPLE

Lab Sample ID: IZ26D
LIMS ID: 06-1118
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 07:14
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 9.13 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 6.8
Percent Moisture: 27.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	55	< 55 U
53469-21-9	Aroclor 1242	55	< 55 U
12672-29-6	Aroclor 1248	55	< 55 U
11097-69-1	**Aroclor 1254**	**55**	**100**
11096-82-5	**Aroclor 1260**	**55**	**230**
11104-28-2	Aroclor 1221	55	< 55 U
11141-16-5	Aroclor 1232	55	< 55 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	66.8%
Tetrachlorometaxylene	68.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-18
SAMPLE

Lab Sample ID: IZ26L
LIMS ID: 06-1126
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 12:09
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 7.2
Percent Moisture: 7.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	Aroclor 1248	20	< 20 U
11097-69-1	Aroclor 1254	20	< 20 U
11096-82-5	Aroclor 1260	20	< 20 U
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	62.2%
Tetrachlorometaxylene	71.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-19
SAMPLE

Lab Sample ID: IZ26U
LIMS ID: 06-1135
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 15:11
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 26.0 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 6.8
Percent Moisture: 29.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	19	< 19 U
53469-21-9	Aroclor 1242	19	< 19 U
12672-29-6	Aroclor 1248	29	< 29 Y
11097-69-1	**Aroclor 1254**	**19**	**130**
11096-82-5	**Aroclor 1260**	**19**	**320 E**
11104-28-2	Aroclor 1221	19	< 19 U
11141-16-5	Aroclor 1232	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	74.8%
Tetrachlorometaxylene	67.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-19
DILUTION

Lab Sample ID: IZ26U
LIMS ID: 06-1135
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/13/06 20:17
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 26.0 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 5.00
Silica Gel: No
pH: 6.8
Percent Moisture: 29.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	96	< 96 U
53469-21-9	Aroclor 1242	96	< 96 U
12672-29-6	Aroclor 1248	96	< 96 U
11097-69-1	Aroclor 1254	140	< 140 Y
11096-82-5	**Aroclor 1260**	**96**	**350**
11104-28-2	Aroclor 1221	96	< 96 U
11141-16-5	Aroclor 1232	96	< 96 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	76.2%
Tetrachlorometaxylene	78.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-20
SAMPLE

Lab Sample ID: IZ26K
LIMS ID: 06-1125
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 11:46
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 7.0
Percent Moisture: 15.1%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	Aroclor 1248	20	< 20 U
11097-69-1	**Aroclor 1254**	**20**	**20 J**
11096-82-5	**Aroclor 1260**	**20**	**25**
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	60.8%
Tetrachlorometaxylene	70.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-21
SAMPLE

Lab Sample ID: IZ26V
LIMS ID: 06-1136
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 05:36
Instrument/Analyst: ECD5/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 5.51 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 6.7
Percent Moisture: 26.9%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	91	< 91 U
53469-21-9	Aroclor 1242	91	< 91 U
12672-29-6	Aroclor 1248	91	< 91 U
11097-69-1	**Aroclor 1254**	**91**	**83 J**
11096-82-5	**Aroclor 1260**	**91**	**120**
11104-28-2	Aroclor 1221	91	< 91 U
11141-16-5	Aroclor 1232	91	< 91 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	63.8%
Tetrachlorometaxylene	63.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-23
SAMPLE

Lab Sample ID: IZ26J
LIMS ID: 06-1124
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 10:16
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.3 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 7.2
Percent Moisture: 26.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	Aroclor 1248	20	< 20 U
11097-69-1	**Aroclor 1254**	**20**	**36**
11096-82-5	**Aroclor 1260**	**20**	**59**
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	73.8%
Tetrachlorometaxylene	66.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-24
SAMPLE

Lab Sample ID: IZ26E
LIMS ID: 06-1119
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 07:37
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 1.73 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 7.3
Percent Moisture: 32.0%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	290	< 290 U
53469-21-9	Aroclor 1242	290	< 290 U
12672-29-6	Aroclor 1248	290	< 290 U
11097-69-1	Aroclor 1254	290	< 290 U
11096-82-5	**Aroclor 1260**	**290**	**210 J**
11104-28-2	Aroclor 1221	290	< 290 U
11141-16-5	Aroclor 1232	290	< 290 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	65.8%
Tetrachlorometaxylene	67.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-25
SAMPLE

Lab Sample ID: IZ26F
LIMS ID: 06-1120
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 08:45
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 7.32 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 6.9
Percent Moisture: 41.4%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	68	< 68 U
53469-21-9	Aroclor 1242	68	< 68 U
12672-29-6	Aroclor 1248	68	< 68 U
11097-69-1	**Aroclor 1254**	**68**	**190**
11096-82-5	**Aroclor 1260**	**68**	**260**
11104-28-2	Aroclor 1221	68	< 68 U
11141-16-5	Aroclor 1232	68	< 68 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	70.5%
Tetrachlorometaxylene	66.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-26
SAMPLE

Lab Sample ID: IZ26I
LIMS ID: 06-1123
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 09:53
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 7.2
Percent Moisture: 15.3%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	20	< 20 U
53469-21-9	Aroclor 1242	20	< 20 U
12672-29-6	Aroclor 1248	20	< 20 U
11097-69-1	**Aroclor 1254**	**20**	**56**
11096-82-5	**Aroclor 1260**	**20**	**140**
11104-28-2	Aroclor 1221	20	< 20 U
11141-16-5	Aroclor 1232	20	< 20 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	63.2%
Tetrachlorometaxylene	68.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-28
SAMPLE

Lab Sample ID: IZ26H
LIMS ID: 06-1122
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/11/06 09:30
Instrument/Analyst: ECD2/AAR
GPC Cleanup: No
Sulfur Cleanup: Yes
Acid Cleanup: Yes
Florisil Cleanup: No

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
pH: 7.0
Percent Moisture: 17.5%

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	19	< 19 U
53469-21-9	Aroclor 1242	19	< 19 U
12672-29-6	Aroclor 1248	19	< 19 U
11097-69-1	**Aroclor 1254**	**19**	**35**
11096-82-5	**Aroclor 1260**	**19**	**44**
11104-28-2	Aroclor 1221	19	< 19 U
11141-16-5	Aroclor 1232	19	< 19 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	63.5%
Tetrachlorometaxylene	69.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCB by GC/ECD Method SW8082
Page 1 of 1

Sample ID: EW-RM06-3-RB
SAMPLE

Lab Sample ID: IZ26M
LIMS ID: 06-1127
Matrix: Water
Data Release Authorized:
Reported: 02/07/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 01/31/06
Date Analyzed: 02/06/06 20:44
Instrument/Analyst: ECD5/AAR
GPC Cleanup: No
Sulfur Cleanup: No

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: No
Acid Cleanup: No

CAS Number	Analyte	RL	Result
12674-11-2	Aroclor 1016	1.0	< 1.0 U
53469-21-9	Aroclor 1242	1.0	< 1.0 U
12672-29-6	Aroclor 1248	1.0	< 1.0 U
11097-69-1	Aroclor 1254	1.0	< 1.0 U
11096-82-5	Aroclor 1260	1.0	< 1.0 U
11104-28-2	Aroclor 1221	1.0	< 1.0 U
11141-16-5	Aroclor 1232	1.0	< 1.0 U

Reported in µg/L (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	43.8%
Tetrachlorometaxylene	79.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-01**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26A
LIMS ID: 06-1115
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 12:52
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 32.6%
pH: 7.0

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**630**
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	**1,4-Dichlorobenzene**	**20**	**18 J**
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**20**	**56**
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**24**
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	**2-Methylnaphthalene**	**20**	**20**
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	**Acenaphthylene**	**20**	**18 J**
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	**Acenaphthene**	**20**	**16 J**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-01**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26A QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1115 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/08/06 12:52

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**20**
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**110**
86-74-8	**Carbazole**	**20**	**21**
120-12-7	**Anthracene**	**20**	**70**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**300**
129-00-0	**Pyrene**	**20**	**220**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**120**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**220**
218-01-9	**Chrysene**	**20**	**180**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**190**
207-08-9	**Benzo(k)fluoranthene**	**20**	**140**
50-32-8	**Benzo(a)pyrene**	**20**	**140**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**50**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**20**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**50**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	84.4%	2-Fluorobiphenyl	78.0%
d14-p-Terphenyl	65.2%	d4-1,2-Dichlorobenzene	62.0%
d5-Phenol	75.2%	2-Fluorophenol	77.9%
2,4,6-Tribromophenol	81.1%	d4-2-Chlorophenol	72.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-02**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26B
LIMS ID: 06-1116
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 13:26
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 16.3%
pH: 6.5

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**330**
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	**1,4-Dichlorobenzene**	**20**	**68**
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**20**	**51**
621-64-7	N-Nitroso-Di-N-Propylamine	99	< 99 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	99	< 99 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	99	< 99 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	99	< 99 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	99	< 99 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	99	< 99 U
88-06-2	2,4,6-Trichlorophenol	99	< 99 U
95-95-4	2,4,5-Trichlorophenol	99	< 99 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	99	< 99 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	99	< 99 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	99	< 99 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	99	< 99 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-02**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26B QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1116 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/08/06 13:26

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	99	< 99 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	99	< 99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	99	< 99 U
85-01-8	**Phenanthrene**	**20**	**32**
86-74-8	Carbazole	20	< 20 U
120-12-7	**Anthracene**	**20**	**25**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**88**
129-00-0	**Pyrene**	**20**	**60**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	99	< 99 U
56-55-3	**Benzo(a)anthracene**	**20**	**39**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**76**
218-01-9	**Chrysene**	**20**	**64**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**62**
207-08-9	**Benzo(k)fluoranthene**	**20**	**46**
50-32-8	**Benzo(a)pyrene**	**20**	**45**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**18 J**
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	**Benzo(g,h,i)perylene**	**20**	**19 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	84.0%	2-Fluorobiphenyl	81.6%
d14-p-Terphenyl	63.2%	d4-1,2-Dichlorobenzene	65.6%
d5-Phenol	75.2%	2-Fluorophenol	79.2%
2,4,6-Tribromophenol	77.1%	d4-2-Chlorophenol	73.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-3**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26N
LIMS ID: 06-1128
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 20:50
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.7 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 14.4%
pH: 7.0

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**44**
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	**1,4-Dichlorobenzene**	**20**	**39**
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**20**	**33**
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	97	< 97 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-3**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26N QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1128 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/08/06 20:50

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	**Phenanthrene**	**20**	**15 J**
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**34**
129-00-0	**Pyrene**	**20**	**36**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	**Benzo(a)anthracene**	**20**	**15 J**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**31**
218-01-9	**Chrysene**	**20**	**21**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**24**
207-08-9	**Benzo(k)fluoranthene**	**20**	**21**
50-32-8	**Benzo(a)pyrene**	**20**	**15 J**
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	84.0%	2-Fluorobiphenyl	81.2%
d14-p-Terphenyl	103%	d4-1,2-Dichlorobenzene	68.0%
d5-Phenol	75.7%	2-Fluorophenol	81.3%
2,4,6-Tribromophenol	104%	d4-2-Chlorophenol	74.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-4**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ260 QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1129 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Data Release Authorized: Date Sampled: 01/24/06
Reported: 02/10/06 Date Received: 01/25/06

Date Extracted: 02/06/06 Sample Amount: 25.1 g-dry-wt
Date Analyzed: 02/08/06 21:24 Final Extract Volume: 0.5 mL
Instrument/Analyst: NT6NT6/PKPK Dilution Factor: 1.00
GPC Cleanup: No Percent Moisture: 28.4%
pH: 6.9

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**450**
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	**1,4-Dichlorobenzene**	**20**	**14 J**
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**20**	**55**
621-64-7	N-Nitroso-Di-N-Propylamine	100	< 100 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	100	< 100 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	100	< 100 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**22**
106-47-8	4-Chloroaniline	100	< 100 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	100	< 100 U
91-57-6	**2-Methylnaphthalene**	**20**	**19 J**
77-47-4	Hexachlorocyclopentadiene	100	< 100 U
88-06-2	2,4,6-Trichlorophenol	100	< 100 U
95-95-4	2,4,5-Trichlorophenol	100	< 100 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	100	< 100 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	**Acenaphthylene**	**20**	**20**
99-09-2	3-Nitroaniline	100	< 100 U
83-32-9	**Acenaphthene**	**20**	**12 J**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	100	< 100 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	100	< 100 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-4**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ260 QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1129 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/08/06 21:24

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	100	< 100 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**18 J**
100-01-6	4-Nitroaniline	100	< 100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	100	< 100 U
85-01-8	**Phenanthrene**	**20**	**98**
86-74-8	**Carbazole**	**20**	**18 J**
120-12-7	**Anthracene**	**20**	**69**
84-74-2	**Di-n-Butylphthalate**	**20**	**13 J**
206-44-0	**Fluoranthene**	**20**	**280**
129-00-0	**Pyrene**	**20**	**340**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	100	< 100 U
56-55-3	**Benzo(a)anthracene**	**20**	**120**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**250**
218-01-9	**Chrysene**	**20**	**170**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**260**
207-08-9	**Benzo(k)fluoranthene**	**20**	**160**
50-32-8	**Benzo(a)pyrene**	**20**	**140**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**44**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**15 J**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**42**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	85.6%	2-Fluorobiphenyl	76.4%
d14-p-Terphenyl	106%	d4-1,2-Dichlorobenzene	68.0%
d5-Phenol	77.1%	2-Fluorophenol	85.6%
2,4,6-Tribromophenol	100%	d4-2-Chlorophenol	77.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-5**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26P
LIMS ID: 06-1130
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 21:58
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.4 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 25.3%
pH: 7.0

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**220**
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	**1,4-Dichlorobenzene**	**20**	**22**
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**20**	**33**
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**19 J**
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	**Acenaphthylene**	**20**	**18 J**
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	**Acenaphthene**	**20**	**11 J**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-5**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26P QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1130 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/08/06 21:58

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**17 J**
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**77**
86-74-8	**Carbazole**	**20**	**16 J**
120-12-7	**Anthracene**	**20**	**64**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**230**
129-00-0	**Pyrene**	**20**	**250**
85-68-7	**Butylbenzylphthalate**	**20**	**14 J**
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**110**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**200**
218-01-9	**Chrysene**	**20**	**170**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**180**
207-08-9	**Benzo(k)fluoranthene**	**20**	**160**
50-32-8	**Benzo(a)pyrene**	**20**	**120**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**35**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**12 J**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**34**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	80.0%	2-Fluorobiphenyl	74.8%
d14-p-Terphenyl	107%	d4-1,2-Dichlorobenzene	63.6%
d5-Phenol	73.1%	2-Fluorophenol	80.3%
2,4,6-Tribromophenol	97.6%	d4-2-Chlorophenol	73.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-6**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26Q
LIMS ID: 06-1131
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 22:32
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.7 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 26.5%
pH: 7.1

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**19**	**400**
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	**1,4-Dichlorobenzene**	**19**	**82**
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	**4-Methylphenol**	**19**	**170**
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	**Naphthalene**	**19**	**47**
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	**2-Methylnaphthalene**	**19**	**18 J**
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	**Acenaphthylene**	**19**	**18 J**
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	**Acenaphthene**	**19**	**25**
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	**Dibenzofuran**	**19**	**24**
606-20-2	2,6-Dinitrotoluene	97	< 97 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-6**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26Q QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1131 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/08/06 22:32

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	**Fluorene**	**19**	**35**
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	**Phenanthrene**	**19**	**120**
86-74-8	**Carbazole**	**19**	**22**
120-12-7	**Anthracene**	**19**	**83**
84-74-2	**Di-n-Butylphthalate**	**19**	**38**
206-44-0	**Fluoranthene**	**19**	**320**
129-00-0	**Pyrene**	**19**	**310**
85-68-7	**Butylbenzylphthalate**	**19**	**18 J**
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	**Benzo(a)anthracene**	**19**	**120**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**260**
218-01-9	**Chrysene**	**19**	**180**
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	**Benzo(b)fluoranthene**	**19**	**220**
207-08-9	**Benzo(k)fluoranthene**	**19**	**160**
50-32-8	**Benzo(a)pyrene**	**19**	**130**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**19**	**41**
53-70-3	**Dibenz(a,h)anthracene**	**19**	**16 J**
191-24-2	**Benzo(g,h,i)perylene**	**19**	**44**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	80.4%	2-Fluorobiphenyl	73.6%
d14-p-Terphenyl	114%	d4-1,2-Dichlorobenzene	64.0%
d5-Phenol	73.9%	2-Fluorophenol	81.1%
2,4,6-Tribromophenol	95.5%	d4-2-Chlorophenol	74.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-7**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26R
LIMS ID: 06-1132
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 19:05
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.7 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 28.7%
pH: 7.0

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**520**
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	**1,4-Dichlorobenzene**	**20**	**22**
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**20**	**99**
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**21**
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	**Acenaphthylene**	**20**	**14 J**
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	**Acenaphthene**	**20**	**19 J**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	**Dibenzofuran**	**20**	**17 J**
606-20-2	2,6-Dinitrotoluene	97	< 97 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-7**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26R QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1132 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/09/06 19:05

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**27**
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	**Phenanthrene**	**20**	**100**
86-74-8	**Carbazole**	**20**	**27**
120-12-7	**Anthracene**	**20**	**86**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**270**
129-00-0	**Pyrene**	**20**	**240**
85-68-7	**Butylbenzylphthalate**	**20**	**22**
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	**Benzo(a)anthracene**	**20**	**110**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**240**
218-01-9	**Chrysene**	**20**	**160**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**200**
207-08-9	**Benzo(k)fluoranthene**	**20**	**150**
50-32-8	**Benzo(a)pyrene**	**20**	**130**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**34**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**14 J**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**34**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	77.6%	2-Fluorobiphenyl	75.6%
d14-p-Terphenyl	82.8%	d4-1,2-Dichlorobenzene	65.2%
d5-Phenol	79.5%	2-Fluorophenol	78.1%
2,4,6-Tribromophenol	80.5%	d4-2-Chlorophenol	77.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-8**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26S
LIMS ID: 06-1133
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 19:39
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 13.7%
pH: 6.9

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	100	< 100 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	100	< 100 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	100	< 100 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	100	< 100 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	100	< 100 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	100	< 100 U
88-06-2	2,4,6-Trichlorophenol	100	< 100 U
95-95-4	2,4,5-Trichlorophenol	100	< 100 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	100	< 100 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	100	< 100 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	100	< 100 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	100	< 100 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-8**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26S QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1133 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/09/06 19:39

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	100	< 100 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	100	< 100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	100	< 100 U
85-01-8	**Phenanthrene**	**20**	**15 J**
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**33**
129-00-0	**Pyrene**	**20**	**34**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	100	< 100 U
56-55-3	**Benzo(a)anthracene**	**20**	**17 J**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**74**
218-01-9	**Chrysene**	**20**	**24**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**27**
207-08-9	**Benzo(k)fluoranthene**	**20**	**19 J**
50-32-8	**Benzo(a)pyrene**	**20**	**16 J**
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	74.0%	2-Fluorobiphenyl	74.8%
d14-p-Terphenyl	86.0%	d4-1,2-Dichlorobenzene	62.0%
d5-Phenol	77.9%	2-Fluorophenol	73.9%
2,4,6-Tribromophenol	85.6%	d4-2-Chlorophenol	73.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-10**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26T
LIMS ID: 06-1134
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 20:13
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 31.2%
pH: 6.8

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**470**
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	**1,3-Dichlorobenzene**	**20**	**28**
106-46-7	**1,4-Dichlorobenzene**	**20**	**28**
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**20**	**100**
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**30**
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	**2-Methylnaphthalene**	**20**	**19 J**
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	**Acenaphthylene**	**20**	**20**
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	**Acenaphthene**	**20**	**18 J**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	**Dibenzofuran**	**20**	**17 J**
606-20-2	2,6-Dinitrotoluene	98	< 98 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-10**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26T QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1134 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/09/06 20:13

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**25**
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**120**
86-74-8	**Carbazole**	**20**	**24**
120-12-7	**Anthracene**	**20**	**86**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**310**
129-00-0	**Pyrene**	**20**	**310**
85-68-7	**Butylbenzylphthalate**	**20**	**25**
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**150**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**260**
218-01-9	**Chrysene**	**20**	**230**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**290**
207-08-9	**Benzo(k)fluoranthene**	**20**	**190**
50-32-8	**Benzo(a)pyrene**	**20**	**180**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**49**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**19 J**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**48**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	72.8%	2-Fluorobiphenyl	71.6%
d14-p-Terphenyl	86.8%	d4-1,2-Dichlorobenzene	60.0%
d5-Phenol	74.7%	2-Fluorophenol	73.9%
2,4,6-Tribromophenol	87.2%	d4-2-Chlorophenol	72.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-15**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26G
LIMS ID: 06-1121
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 13:23
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 41.9%
pH: 7.5

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**39**	**340**
111-44-4	Bis-(2-Chloroethyl) Ether	39	< 39 U
95-57-8	2-Chlorophenol	39	< 39 U
541-73-1	**1,3-Dichlorobenzene**	**39**	**20 J**
106-46-7	**1,4-Dichlorobenzene**	**39**	**170**
100-51-6	Benzyl Alcohol	39	< 39 U
95-50-1	1,2-Dichlorobenzene	39	< 39 U
95-48-7	2-Methylphenol	39	< 39 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	39	< 39 U
106-44-5	**4-Methylphenol**	**39**	**100**
621-64-7	N-Nitroso-Di-N-Propylamine	200	< 200 U
67-72-1	Hexachloroethane	39	< 39 U
98-95-3	Nitrobenzene	39	< 39 U
78-59-1	Isophorone	39	< 39 U
88-75-5	2-Nitrophenol	200	< 200 U
105-67-9	2,4-Dimethylphenol	39	< 39 U
65-85-0	Benzoic Acid	390	< 390 U
111-91-1	bis(2-Chloroethoxy) Methane	39	< 39 U
120-83-2	2,4-Dichlorophenol	200	< 200 U
120-82-1	1,2,4-Trichlorobenzene	39	< 39 U
91-20-3	**Naphthalene**	**39**	**120**
106-47-8	4-Chloroaniline	200	< 200 U
87-68-3	Hexachlorobutadiene	39	< 39 U
59-50-7	4-Chloro-3-methylphenol	200	< 200 U
91-57-6	**2-Methylnaphthalene**	**39**	**300**
77-47-4	Hexachlorocyclopentadiene	200	< 200 U
88-06-2	2,4,6-Trichlorophenol	200	< 200 U
95-95-4	2,4,5-Trichlorophenol	200	< 200 U
91-58-7	2-Chloronaphthalene	39	< 39 U
88-74-4	2-Nitroaniline	200	< 200 U
131-11-3	Dimethylphthalate	39	< 39 U
208-96-8	**Acenaphthylene**	**39**	**44**
99-09-2	3-Nitroaniline	200	< 200 U
83-32-9	**Acenaphthene**	**39**	**96**
51-28-5	2,4-Dinitrophenol	390	< 390 U
100-02-7	4-Nitrophenol	200	< 200 U
132-64-9	**Dibenzofuran**	**39**	**81**
606-20-2	2,6-Dinitrotoluene	200	< 200 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-15**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26G QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1121 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/09/06 13:23

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	200	< 200 U
84-66-2	Diethylphthalate	39	< 39 U
7005-72-3	4-Chlorophenyl-phenylether	39	< 39 U
86-73-7	**Fluorene**	**39**	**180**
100-01-6	4-Nitroaniline	200	< 200 U
534-52-1	4,6-Dinitro-2-Methylphenol	390	< 390 U
86-30-6	N-Nitrosodiphenylamine	39	< 39 U
101-55-3	4-Bromophenyl-phenylether	39	< 39 U
118-74-1	Hexachlorobenzene	39	< 39 U
87-86-5	Pentachlorophenol	200	< 200 U
85-01-8	**Phenanthrene**	**39**	**380**
86-74-8	Carbazole	39	< 39 U
120-12-7	**Anthracene**	**39**	**230**
84-74-2	**Di-n-Butylphthalate**	**39**	**120**
206-44-0	**Fluoranthene**	**39**	**920**
129-00-0	**Pyrene**	**39**	**1,200**
85-68-7	Butylbenzylphthalate	39	< 39 U
91-94-1	3,3'-Dichlorobenzidine	200	< 200 U
56-55-3	**Benzo(a)anthracene**	**39**	**360**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**39**	**2,800**
218-01-9	**Chrysene**	**39**	**520**
117-84-0	Di-n-Octyl phthalate	39	< 39 U
205-99-2	**Benzo(b)fluoranthene**	**39**	**420**
207-08-9	**Benzo(k)fluoranthene**	**39**	**410**
50-32-8	**Benzo(a)pyrene**	**39**	**330**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**39**	**86**
53-70-3	**Dibenz(a,h)anthracene**	**39**	**30 J**
191-24-2	**Benzo(g,h,i)perylene**	**39**	**110**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	78.2%	2-Fluorobiphenyl	79.5%
d14-p-Terphenyl	102%	d4-1,2-Dichlorobenzene	69.8%
d5-Phenol	81.1%	2-Fluorophenol	76.8%
2,4,6-Tribromophenol	108%	d4-2-Chlorophenol	80.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS

Sample ID: EW-RM06-16
SAMPLE

Lab Sample ID: IZ26C
LIMS ID: 06-1117
Matrix: Sediment
Data Release Authorized:
Reported: 02/24/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 14:01
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 28.4%
pH: 6.9

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**560**
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	**1,4-Dichlorobenzene**	**20**	**15 J**
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**20**	**120**
621-64-7	N-Nitroso-Di-N-Propylamine	100	< 100 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	100	< 100 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	100	< 100 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**34**
106-47-8	4-Chloroaniline	100	< 100 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	100	< 100 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	100	< 100 U
88-06-2	2,4,6-Trichlorophenol	100	< 100 U
95-95-4	2,4,5-Trichlorophenol	100	< 100 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	100	< 100 U
131-11-3	Dimethylphthalate	20	< 20 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-16**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26C QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1117 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/08/06 14:01

CAS Number	Analyte	RL	Result
208-96-8	**Acenaphthylene**	**20**	**23**
99-09-2	3-Nitroaniline	100	< 100 U
83-32-9	**Acenaphthene**	**20**	**32**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	100	< 100 U
132-64-9	**Dibenzofuran**	**20**	**24**
606-20-2	2,6-Dinitrotoluene	100	< 100 U
121-14-2	2,4-Dinitrotoluene	100	< 100 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**30**
100-01-6	4-Nitroaniline	100	< 100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	100	< 100 U
85-01-8	**Phenanthrene**	**20**	**130**
86-74-8	**Carbazole**	**20**	**24**
120-12-7	**Anthracene**	**20**	**90**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**370**
129-00-0	**Pyrene**	**20**	**220**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	100	< 100 U
56-55-3	**Benzo(a)anthracene**	**20**	**140**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**230**
218-01-9	**Chrysene**	**20**	**220**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**230**
207-08-9	**Benzo(k)fluoranthene**	**20**	**180**
50-32-8	**Benzo(a)pyrene**	**20**	**170**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**49**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**17 J**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**45**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	85.2%	2-Fluorobiphenyl	82.0%
d14-p-Terphenyl	69.2%	d4-1,2-Dichlorobenzene	66.4%
d5-Phenol	78.1%	2-Fluorophenol	81.9%
2,4,6-Tribromophenol	83.2%	d4-2-Chlorophenol	75.7%

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ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-101**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26D
LIMS ID: 06-1118
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 14:35
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 27.1%
pH: 6.8

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**390**
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	**1,4-Dichlorobenzene**	**20**	**24**
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**20**	**80**
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**25**
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	**Acenaphthylene**	**20**	**15 J**
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	**Acenaphthene**	**20**	**27**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	**Dibenzofuran**	**20**	**19 J**
606-20-2	2,6-Dinitrotoluene	98	< 98 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-101**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26D QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1118 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/08/06 14:35

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**24**
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**92**
86-74-8	**Carbazole**	**20**	**22**
120-12-7	**Anthracene**	**20**	**66**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**300**
129-00-0	**Pyrene**	**20**	**190**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**100**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**210**
218-01-9	**Chrysene**	**20**	**160**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**190**
207-08-9	**Benzo(k)fluoranthene**	**20**	**120**
50-32-8	**Benzo(a)pyrene**	**20**	**120**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**35**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**13 J**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**34**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	83.6%	2-Fluorobiphenyl	82.8%
d14-p-Terphenyl	72.4%	d4-1,2-Dichlorobenzene	62.4%
d5-Phenol	75.5%	2-Fluorophenol	79.2%
2,4,6-Tribromophenol	90.9%	d4-2-Chlorophenol	73.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-101**
Page 1 of 2 **DILUTION**

Lab Sample ID: IZ26D
LIMS ID: 06-1118
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 12:49
Instrument/Analyst: NT6/PK
GPC Cleanup: No

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 5.00
Percent Moisture: 27.1%
pH: 6.8

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**98**	**420**
111-44-4	Bis-(2-Chloroethyl) Ether	98	< 98 U
95-57-8	2-Chlorophenol	98	< 98 U
541-73-1	1,3-Dichlorobenzene	98	< 98 U
106-46-7	1,4-Dichlorobenzene	98	< 98 U
100-51-6	Benzyl Alcohol	98	< 98 U
95-50-1	1,2-Dichlorobenzene	98	< 98 U
95-48-7	2-Methylphenol	98	< 98 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	98	< 98 U
106-44-5	**4-Methylphenol**	**98**	**89 J**
621-64-7	N-Nitroso-Di-N-Propylamine	490	< 490 U
67-72-1	Hexachloroethane	98	< 98 U
98-95-3	Nitrobenzene	98	< 98 U
78-59-1	Isophorone	98	< 98 U
88-75-5	2-Nitrophenol	490	< 490 U
105-67-9	2,4-Dimethylphenol	98	< 98 U
65-85-0	Benzoic Acid	980	< 980 U
111-91-1	bis(2-Chloroethoxy) Methane	98	< 98 U
120-83-2	2,4-Dichlorophenol	490	< 490 U
120-82-1	1,2,4-Trichlorobenzene	98	< 98 U
91-20-3	Naphthalene	98	< 98 U
106-47-8	4-Chloroaniline	490	< 490 U
87-68-3	Hexachlorobutadiene	98	< 98 U
59-50-7	4-Chloro-3-methylphenol	490	< 490 U
91-57-6	2-Methylnaphthalene	98	< 98 U
77-47-4	Hexachlorocyclopentadiene	490	< 490 U
88-06-2	2,4,6-Trichlorophenol	490	< 490 U
95-95-4	2,4,5-Trichlorophenol	490	< 490 U
91-58-7	2-Chloronaphthalene	98	< 98 U
88-74-4	2-Nitroaniline	490	< 490 U
131-11-3	Dimethylphthalate	98	< 98 U
208-96-8	Acenaphthylene	98	< 98 U
99-09-2	3-Nitroaniline	490	< 490 U
83-32-9	Acenaphthene	98	< 98 U
51-28-5	2,4-Dinitrophenol	980	< 980 U
100-02-7	4-Nitrophenol	490	< 490 U
132-64-9	Dibenzofuran	98	< 98 U
606-20-2	2,6-Dinitrotoluene	490	< 490 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-101**
Page 2 of 2 **DILUTION**

Lab Sample ID: IZ26D QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1118 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/09/06 12:49

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	490	< 490 U
84-66-2	Diethylphthalate	98	< 98 U
7005-72-3	4-Chlorophenyl-phenylether	98	< 98 U
86-73-7	Fluorene	98	< 98 U
100-01-6	4-Nitroaniline	490	< 490 U
534-52-1	4,6-Dinitro-2-Methylphenol	980	< 980 U
86-30-6	N-Nitrosodiphenylamine	98	< 98 U
101-55-3	4-Bromophenyl-phenylether	98	< 98 U
118-74-1	Hexachlorobenzene	98	< 98 U
87-86-5	Pentachlorophenol	490	< 490 U
85-01-8	**Phenanthrene**	**98**	**93 J**
86-74-8	Carbazole	98	< 98 U
120-12-7	**Anthracene**	**98**	**61 J**
84-74-2	Di-n-Butylphthalate	98	< 98 U
206-44-0	**Fluoranthene**	**98**	**250**
129-00-0	**Pyrene**	**98**	**210**
85-68-7	Butylbenzylphthalate	98	< 98 U
91-94-1	3,3'-Dichlorobenzidine	490	< 490 U
56-55-3	**Benzo(a)anthracene**	**98**	**100**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**98**	**210**
218-01-9	**Chrysene**	**98**	**160**
117-84-0	Di-n-Octyl phthalate	98	< 98 U
205-99-2	**Benzo(b)fluoranthene**	**98**	**150**
207-08-9	**Benzo(k)fluoranthene**	**98**	**100**
50-32-8	**Benzo(a)pyrene**	**98**	**110**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**98**	**61 J**
53-70-3	Dibenz(a,h)anthracene	98	< 98 U
191-24-2	**Benzo(g,h,i)perylene**	**98**	**69 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	76.4%	2-Fluorobiphenyl	79.2%
d14-p-Terphenyl	82.2%	d4-1,2-Dichlorobenzene	64.0%
d5-Phenol	80.9%	2-Fluorophenol	74.9%
2,4,6-Tribromophenol	73.7%	d4-2-Chlorophenol	74.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-18**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26L
LIMS ID: 06-1126
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 16:14
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 7.4%
pH: 7.2

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	100	< 100 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	100	< 100 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	100	< 100 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	100	< 100 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	100	< 100 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	100	< 100 U
88-06-2	2,4,6-Trichlorophenol	100	< 100 U
95-95-4	2,4,5-Trichlorophenol	100	< 100 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	100	< 100 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	100	< 100 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	100	< 100 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	100	< 100 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-18**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26L QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1126 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/09/06 16:14

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	100	< 100 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	100	< 100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	100	< 100 U
85-01-8	Phenanthrene	20	< 20 U
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	Fluoranthene	20	< 20 U
129-00-0	Pyrene	20	< 20 U
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	100	< 100 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	bis(2-Ethylhexyl)phthalate	20	< 20 U
218-01-9	Chrysene	20	< 20 U
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	Benzo(b)fluoranthene	20	< 20 U
207-08-9	Benzo(k)fluoranthene	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	74.0%	2-Fluorobiphenyl	72.4%
d14-p-Terphenyl	84.0%	d4-1,2-Dichlorobenzene	64.0%
d5-Phenol	67.7%	2-Fluorophenol	52.3%
2,4,6-Tribromophenol	63.7%	d4-2-Chlorophenol	59.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-19**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26U
LIMS ID: 06-1135
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 20:47
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.4 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 29.5%
pH: 6.8

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**480**
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	**1,4-Dichlorobenzene**	**20**	**13 J**
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**20**	**200**
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**29**
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	**2-Methylnaphthalene**	**20**	**19 J**
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	**Acenaphthylene**	**20**	**17 J**
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	**Acenaphthene**	**20**	**17 J**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-19**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26U QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1135 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/09/06 20:47

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**29**
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**130**
86-74-8	**Carbazole**	**20**	**23**
120-12-7	**Anthracene**	**20**	**90**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**340**
129-00-0	**Pyrene**	**20**	**330**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**130**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**220**
218-01-9	**Chrysene**	**20**	**190**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**240**
207-08-9	**Benzo(k)fluoranthene**	**20**	**150**
50-32-8	**Benzo(a)pyrene**	**20**	**140**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**42**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**11 J**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**43**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	77.6%	2-Fluorobiphenyl	77.2%
d14-p-Terphenyl	97.2%	d4-1,2-Dichlorobenzene	66.4%
d5-Phenol	80.0%	2-Fluorophenol	74.1%
2,4,6-Tribromophenol	94.1%	d4-2-Chlorophenol	77.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-20**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26K
LIMS ID: 06-1125
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 15:40
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 15.1%
pH: 7.0

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-20**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26K QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1125 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/09/06 15:40

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**19 J**
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**27**
129-00-0	**Pyrene**	**20**	**24**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**23**
218-01-9	**Chrysene**	**20**	**11 J**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**12 J**
207-08-9	**Benzo(k)fluoranthene**	**20**	**10 J**
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	65.2%	2-Fluorobiphenyl	67.6%
d14-p-Terphenyl	78.4%	d4-1,2-Dichlorobenzene	56.8%
d5-Phenol	68.3%	2-Fluorophenol	65.3%
2,4,6-Tribromophenol	81.6%	d4-2-Chlorophenol	65.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-21**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26V
LIMS ID: 06-1136
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/07/06
Date Analyzed: 02/09/06 18:31
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 26.9%
pH: 6.7

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**19**	**330**
111-44-4	Bis-(2-Chloroethyl) Ether	19	< 19 U
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	**1,4-Dichlorobenzene**	**19**	**17 J**
100-51-6	Benzyl Alcohol	19	< 19 U
95-50-1	1,2-Dichlorobenzene	19	< 19 U
95-48-7	2-Methylphenol	19	< 19 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	19	< 19 U
106-44-5	**4-Methylphenol**	**19**	**120**
621-64-7	N-Nitroso-Di-N-Propylamine	97	< 97 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	97	< 97 U
105-67-9	2,4-Dimethylphenol	19	< 19 U
65-85-0	Benzoic Acid	190	< 190 U
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	97	< 97 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	**Naphthalene**	**19**	**21**
106-47-8	4-Chloroaniline	97	< 97 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	97	< 97 U
91-57-6	2-Methylnaphthalene	19	< 19 U
77-47-4	Hexachlorocyclopentadiene	97	< 97 U
88-06-2	2,4,6-Trichlorophenol	97	< 97 U
95-95-4	2,4,5-Trichlorophenol	97	< 97 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	97	< 97 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	**Acenaphthylene**	**19**	**17 J**
99-09-2	3-Nitroaniline	97	< 97 U
83-32-9	**Acenaphthene**	**19**	**13 J**
51-28-5	2,4-Dinitrophenol	190	< 190 U
100-02-7	4-Nitrophenol	97	< 97 U
132-64-9	Dibenzofuran	19	< 19 U
606-20-2	2,6-Dinitrotoluene	97	< 97 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-21**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26V QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1136 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/09/06 18:31

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	97	< 97 U
84-66-2	Diethylphthalate	19	< 19 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	**Fluorene**	**19**	**23**
100-01-6	4-Nitroaniline	97	< 97 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	97	< 97 U
85-01-8	**Phenanthrene**	**19**	**110**
86-74-8	**Carbazole**	**19**	**23**
120-12-7	**Anthracene**	**19**	**75**
84-74-2	Di-n-Butylphthalate	19	< 19 U
206-44-0	**Fluoranthene**	**19**	**290**
129-00-0	**Pyrene**	**19**	**250**
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	97	< 97 U
56-55-3	**Benzo(a)anthracene**	**19**	**140**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**19**	**270**
218-01-9	**Chrysene**	**19**	**210**
117-84-0	Di-n-Octyl phthalate	19	< 19 U
205-99-2	**Benzo(b)fluoranthene**	**19**	**230**
207-08-9	**Benzo(k)fluoranthene**	**19**	**170**
50-32-8	**Benzo(a)pyrene**	**19**	**160**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**19**	**39**
53-70-3	**Dibenz(a,h)anthracene**	**19**	**12 J**
191-24-2	**Benzo(g,h,i)perylene**	**19**	**37**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	78.4%	2-Fluorobiphenyl	77.2%
d14-p-Terphenyl	84.8%	d4-1,2-Dichlorobenzene	64.4%
d5-Phenol	81.1%	2-Fluorophenol	78.4%
2,4,6-Tribromophenol	84.8%	d4-2-Chlorophenol	77.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-23**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26J
LIMS ID: 06-1124
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 15:06
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.0 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 26.4%
pH: 7.2

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**36**
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**20**	**16 J**
621-64-7	N-Nitroso-Di-N-Propylamine	100	< 100 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	100	< 100 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	100	< 100 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**15 J**
106-47-8	4-Chloroaniline	100	< 100 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	100	< 100 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	100	< 100 U
88-06-2	2,4,6-Trichlorophenol	100	< 100 U
95-95-4	2,4,5-Trichlorophenol	100	< 100 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	100	< 100 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	100	< 100 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	100	< 100 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	100	< 100 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-23**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26J QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1124 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/09/06 15:06

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	100	< 100 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**16 J**
100-01-6	4-Nitroaniline	100	< 100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	100	< 100 U
85-01-8	**Phenanthrene**	**20**	**56**
86-74-8	Carbazole	20	< 20 U
120-12-7	**Anthracene**	**20**	**36**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**120**
129-00-0	**Pyrene**	**20**	**160**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	100	< 100 U
56-55-3	**Benzo(a)anthracene**	**20**	**55**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**33**
218-01-9	**Chrysene**	**20**	**80**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**76**
207-08-9	**Benzo(k)fluoranthene**	**20**	**47**
50-32-8	**Benzo(a)pyrene**	**20**	**52**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**17 J**
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	**Benzo(g,h,i)perylene**	**20**	**17 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	72.8%	2-Fluorobiphenyl	73.6%
d14-p-Terphenyl	76.4%	d4-1,2-Dichlorobenzene	63.2%
d5-Phenol	75.7%	2-Fluorophenol	72.8%
2,4,6-Tribromophenol	88.5%	d4-2-Chlorophenol	72.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-24**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26E
LIMS ID: 06-1119
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 15:09
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.2 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 32.0%
pH: 7.3

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**310**
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	**1,4-Dichlorobenzene**	**20**	**15 J**
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**20**	**24**
621-64-7	N-Nitroso-Di-N-Propylamine	99	< 99 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	99	< 99 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	99	< 99 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**30**
106-47-8	4-Chloroaniline	99	< 99 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	99	< 99 U
91-57-6	**2-Methylnaphthalene**	**20**	**33**
77-47-4	Hexachlorocyclopentadiene	99	< 99 U
88-06-2	2,4,6-Trichlorophenol	99	< 99 U
95-95-4	2,4,5-Trichlorophenol	99	< 99 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	99	< 99 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	**Acenaphthylene**	**20**	**22**
99-09-2	3-Nitroaniline	99	< 99 U
83-32-9	**Acenaphthene**	**20**	**27**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	99	< 99 U
132-64-9	**Dibenzofuran**	**20**	**23**
606-20-2	2,6-Dinitrotoluene	99	< 99 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-24**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26E QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1119 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/08/06 15:09

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	99	< 99 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**36**
100-01-6	4-Nitroaniline	99	< 99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	99	< 99 U
85-01-8	**Phenanthrene**	**20**	**150**
86-74-8	**Carbazole**	**20**	**20**
120-12-7	**Anthracene**	**20**	**80**
84-74-2	**Di-n-Butylphthalate**	**20**	**14 J**
206-44-0	**Fluoranthene**	**20**	**380**
129-00-0	**Pyrene**	**20**	**340**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	99	< 99 U
56-55-3	**Benzo(a)anthracene**	**20**	**130**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**380**
218-01-9	**Chrysene**	**20**	**170**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**210**
207-08-9	**Benzo(k)fluoranthene**	**20**	**140**
50-32-8	**Benzo(a)pyrene**	**20**	**130**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**40**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**13 J**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**42**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	80.4%	2-Fluorobiphenyl	77.6%
d14-p-Terphenyl	84.0%	d4-1,2-Dichlorobenzene	62.4%
d5-Phenol	73.9%	2-Fluorophenol	78.1%
2,4,6-Tribromophenol	101%	d4-2-Chlorophenol	72.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-25**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26F
LIMS ID: 06-1120
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 16:52
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.2 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 41.4%
pH: 6.9

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**590**
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	**1,4-Dichlorobenzene**	**20**	**23**
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**20**	**57**
621-64-7	N-Nitroso-Di-N-Propylamine	99	< 99 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	99	< 99 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	99	< 99 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**40**
106-47-8	4-Chloroaniline	99	< 99 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	99	< 99 U
91-57-6	**2-Methylnaphthalene**	**20**	**29**
77-47-4	Hexachlorocyclopentadiene	99	< 99 U
88-06-2	2,4,6-Trichlorophenol	99	< 99 U
95-95-4	2,4,5-Trichlorophenol	99	< 99 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	99	< 99 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	**Acenaphthylene**	**20**	**31**
99-09-2	3-Nitroaniline	99	< 99 U
83-32-9	**Acenaphthene**	**20**	**30**
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	99	< 99 U
132-64-9	**Dibenzofuran**	**20**	**25**
606-20-2	2,6-Dinitrotoluene	99	< 99 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-25**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26F QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1120 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/08/06 16:52

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	99	< 99 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**48**
100-01-6	4-Nitroaniline	99	< 99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	99	< 99 U
85-01-8	**Phenanthrene**	**20**	**190**
86-74-8	**Carbazole**	**20**	**28**
120-12-7	**Anthracene**	**20**	**110**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**510**
129-00-0	**Pyrene**	**20**	**530**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	99	< 99 U
56-55-3	**Benzo(a)anthracene**	**20**	**180**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**270**
218-01-9	**Chrysene**	**20**	**260**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**320**
207-08-9	**Benzo(k)fluoranthene**	**20**	**220**
50-32-8	**Benzo(a)pyrene**	**20**	**190**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**61**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**21**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**66**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	74.8%	2-Fluorobiphenyl	71.2%
d14-p-Terphenyl	95.6%	d4-1,2-Dichlorobenzene	63.2%
d5-Phenol	70.7%	2-Fluorophenol	74.7%
2,4,6-Tribromophenol	98.9%	d4-2-Chlorophenol	72.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-26**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26I
LIMS ID: 06-1123
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 14:32
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.4 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 15.3%
pH: 7.2

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	20	< 20 U
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-26**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26I QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1123 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/09/06 14:32

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**12 J**
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**32**
129-00-0	**Pyrene**	**20**	**39**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**13 J**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**66**
218-01-9	**Chrysene**	**20**	**17 J**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**23**
207-08-9	**Benzo(k)fluoranthene**	**20**	**14 J**
50-32-8	**Benzo(a)pyrene**	**20**	**15 J**
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	72.0%	2-Fluorobiphenyl	74.0%
d14-p-Terphenyl	79.6%	d4-1,2-Dichlorobenzene	62.0%
d5-Phenol	74.1%	2-Fluorophenol	71.2%
2,4,6-Tribromophenol	89.6%	d4-2-Chlorophenol	72.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-28**
Page 1 of 2 **SAMPLE**

Lab Sample ID: IZ26H
LIMS ID: 06-1122
Matrix: Sediment
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 13:57
Instrument/Analyst: NT6NT6/PKPK
GPC Cleanup: No

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 17.5%
pH: 7.0

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**290**
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**20**	**61**
621-64-7	N-Nitroso-Di-N-Propylamine	98	< 98 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	98	< 98 U
105-67-9	2,4-Dimethylphenol	20	< 20 U
65-85-0	Benzoic Acid	200	< 200 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	98	< 98 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	98	< 98 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	98	< 98 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	98	< 98 U
88-06-2	2,4,6-Trichlorophenol	98	< 98 U
95-95-4	2,4,5-Trichlorophenol	98	< 98 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	98	< 98 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	98	< 98 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	200	< 200 U
100-02-7	4-Nitrophenol	98	< 98 U
132-64-9	Dibenzofuran	20	< 20 U
606-20-2	2,6-Dinitrotoluene	98	< 98 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-28**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26H QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1122 Project: East Waterway Recontam. Mon.
Matrix: Sediment 05-08-09-29
Date Analyzed: 02/09/06 13:57

CAS Number	Analyte	RL	Result
121-14-2	2,4-Dinitrotoluene	98	< 98 U
84-66-2	Diethylphthalate	20	< 20 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	98	< 98 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	98	< 98 U
85-01-8	**Phenanthrene**	**20**	**37**
86-74-8	Carbazole	20	< 20 U
120-12-7	**Anthracene**	**20**	**30**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**94**
129-00-0	**Pyrene**	**20**	**83**
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	98	< 98 U
56-55-3	**Benzo(a)anthracene**	**20**	**42**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**20**	**76**
218-01-9	**Chrysene**	**20**	**67**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
205-99-2	**Benzo(b)fluoranthene**	**20**	**72**
207-08-9	**Benzo(k)fluoranthene**	**20**	**53**
50-32-8	**Benzo(a)pyrene**	**20**	**49**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**17 J**
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	**Benzo(g,h,i)perylene**	**20**	**16 J**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	78.4%	2-Fluorobiphenyl	80.0%
d14-p-Terphenyl	83.2%	d4-1,2-Dichlorobenzene	69.2%
d5-Phenol	81.9%	2-Fluorophenol	78.9%
2,4,6-Tribromophenol	96.5%	d4-2-Chlorophenol	80.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS

Sample ID: EW-RM06-3-RB
SAMPLE

Lab Sample ID: IZ26M
LIMS ID: 06-1127
Matrix: Water
Data Release Authorized:
Reported: 02/10/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 01/27/06
Date Analyzed: 01/30/06 19:37
Instrument/Analyst: NT6/VTS

Sample Amount: 500 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
108-95-2	Phenol	1.0	< 1.0 U
111-44-4	Bis-(2-Chloroethyl) Ether	1.0	< 1.0 U
95-57-8	2-Chlorophenol	1.0	< 1.0 U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0 U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0 U
100-51-6	Benzyl Alcohol	5.0	< 5.0 U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0 U
95-48-7	2-Methylphenol	1.0	< 1.0 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1.0	< 1.0 U
106-44-5	4-Methylphenol	1.0	< 1.0 U
621-64-7	N-Nitroso-Di-N-Propylamine	5.0	< 5.0 U
67-72-1	Hexachloroethane	1.0	< 1.0 U
98-95-3	Nitrobenzene	1.0	< 1.0 U
78-59-1	Isophorone	1.0	< 1.0 U
88-75-5	2-Nitrophenol	5.0	< 5.0 U
105-67-9	2,4-Dimethylphenol	1.0	< 1.0 U
65-85-0	Benzoic Acid	10	< 10 U
111-91-1	bis(2-Chloroethoxy) Methane	1.0	< 1.0 U
120-83-2	2,4-Dichlorophenol	5.0	< 5.0 U
120-82-1	1,2,4-Trichlorobenzene	1.0	< 1.0 U
91-20-3	Naphthalene	1.0	< 1.0 U
106-47-8	4-Chloroaniline	5.0	< 5.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
59-50-7	4-Chloro-3-methylphenol	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	1.0	< 1.0 U
77-47-4	Hexachlorocyclopentadiene	5.0	< 5.0 U
88-06-2	2,4,6-Trichlorophenol	5.0	< 5.0 U
95-95-4	2,4,5-Trichlorophenol	5.0	< 5.0 U
91-58-7	2-Chloronaphthalene	1.0	< 1.0 U
88-74-4	2-Nitroaniline	5.0	< 5.0 U
131-11-3	Dimethylphthalate	1.0	< 1.0 U
208-96-8	Acenaphthylene	1.0	< 1.0 U
99-09-2	3-Nitroaniline	5.0	< 5.0 U
83-32-9	Acenaphthene	1.0	< 1.0 U
51-28-5	2,4-Dinitrophenol	10	< 10 U
100-02-7	4-Nitrophenol	5.0	< 5.0 U
132-64-9	Dibenzofuran	1.0	< 1.0 U
606-20-2	2,6-Dinitrotoluene	5.0	< 5.0 U
121-14-2	2,4-Dinitrotoluene	5.0	< 5.0 U
84-66-2	Diethylphthalate	1.0	< 1.0 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Semivolatiles by SW8270D GC/MS **Sample ID: EW-RM06-3-RB**
Page 2 of 2 **SAMPLE**

Lab Sample ID: IZ26M QC Report No: IZ26-Windward Environmental
LIMS ID: 06-1127 Project: East Waterway Recontam. Mon.
Matrix: Water 05-08-09-29
Date Analyzed: 01/30/06 19:37

CAS Number	Analyte	RL	Result
7005-72-3	4-Chlorophenyl-phenylether	1.0	< 1.0 U
86-73-7	Fluorene	1.0	< 1.0 U
100-01-6	4-Nitroaniline	5.0	< 5.0 U
534-52-1	4,6-Dinitro-2-Methylphenol	10	< 10 U
86-30-6	N-Nitrosodiphenylamine	1.0	< 1.0 U
101-55-3	4-Bromophenyl-phenylether	1.0	< 1.0 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-86-5	Pentachlorophenol	5.0	< 5.0 U
85-01-8	Phenanthrene	1.0	< 1.0 U
86-74-8	Carbazole	1.0	< 1.0 U
120-12-7	Anthracene	1.0	< 1.0 U
84-74-2	Di-n-Butylphthalate	1.0	< 1.0 U
206-44-0	Fluoranthene	1.0	< 1.0 U
129-00-0	Pyrene	1.0	< 1.0 U
85-68-7	Butylbenzylphthalate	1.0	< 1.0 U
91-94-1	3,3'-Dichlorobenzidine	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	1.0	< 1.0 U
117-81-7	bis(2-Ethylhexyl)phthalate	1.0	< 1.0 U
218-01-9	Chrysene	1.0	< 1.0 U
117-84-0	Di-n-Octyl phthalate	1.0	< 1.0 U
205-99-2	Benzo(b)fluoranthene	1.0	< 1.0 U
207-08-9	Benzo(k)fluoranthene	1.0	< 1.0 U
50-32-8	Benzo(a)pyrene	1.0	< 1.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	< 1.0 U
53-70-3	Dibenz(a,h)anthracene	1.0	< 1.0 U
191-24-2	Benzo(g,h,i)perylene	1.0	< 1.0 U

Reported in µg/L (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	89.6%	2-Fluorobiphenyl	68.8%
d14-p-Terphenyl	64.0%	d4-1,2-Dichlorobenzene	56.4%
d5-Phenol	73.1%	2-Fluorophenol	73.3%
2,4,6-Tribromophenol	75.2%	d4-2-Chlorophenol	77.1%

Pesticides

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-01
SAMPLE

Lab Sample ID: IZ26A
LIMS ID: 06-1115
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 18:37
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 17.1 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 7.0
Percent Moisture: 32.6%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	1.5	< 1.5 U
319-85-7	beta-BHC	1.5	< 1.5 U
319-86-8	delta-BHC	1.5	< 1.5 U
58-89-9	gamma-BHC (Lindane)	1.5	< 1.5 U
76-44-8	Heptachlor	1.5	< 1.5 U
309-00-2	Aldrin	1.5	< 1.5 U
1024-57-3	Heptachlor Epoxide	6.4	< 6.4 Y
959-98-8	Endosulfan I	1.5	< 1.5 U
60-57-1	Dieldrin	7.7	< 7.7 Y
72-55-9	4,4'-DDE	2.9	< 2.9 U
72-20-8	Endrin	8.7	< 8.7 Y
33213-65-9	Endosulfan II	2.9	< 2.9 U
72-54-8	4,4'-DDD	2.9	< 2.9 U
1031-07-8	Endosulfan Sulfate	9.6	< 9.6 Y
50-29-3	4,4'-DDT	29	< 29 Y
72-43-5	Methoxychlor	15	< 15 U
53494-70-5	Endrin Ketone	2.9	< 2.9 U
7421-93-4	Endrin Aldehyde	2.9	< 2.9 U
5103-74-2	gamma Chlordane	6.3	< 6.3 Y
5103-71-9	alpha Chlordane	1.5	< 1.5 U
8001-35-2	Toxaphene	150	< 150 U
118-74-1	Hexachlorobenzene	1.5	< 1.5 U
87-68-3	Hexachlorobutadiene	1.5	< 1.5 U
789-02-6	2,4'-DDT	2.9	< 2.9 U
3424-82-6	2,4'-DDE	2.9	< 2.9 U
53-19-0	2,4'-DDD	2.9	< 2.9 U
27304-13-8	oxy Chlordane	2.9	< 2.9 U
5103-73-1	cis-Nonachlor	2.9	< 2.9 U
39765-80-5	trans-Nonachlor	2.9	< 2.9 U
2385-85-5	Mirex	2.9	< 2.9 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	111%
Tetrachlorometaxylene	77.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD **Sample ID: EW-RM06-02**
Page 1 of 1 **SAMPLE**

Lab Sample ID: IZ26B
LIMS ID: 06-1116
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 19:01
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 6.5
Percent Moisture: 16.3%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.98	< 0.98 U
319-85-7	beta-BHC	0.98	< 0.98 U
319-86-8	delta-BHC	0.98	< 0.98 U
58-89-9	gamma-BHC (Lindane)	0.98	< 0.98 U
76-44-8	Heptachlor	0.98	< 0.98 U
309-00-2	Aldrin	0.98	< 0.98 U
1024-57-3	Heptachlor Epoxide	0.98	< 0.98 U
959-98-8	Endosulfan I	0.98	< 0.98 U
60-57-1	Dieldrin	2.0	< 2.0 U
72-55-9	4,4'-DDE	2.0	< 2.0 U
72-20-8	Endrin	2.0	< 2.0 U
33213-65-9	Endosulfan II	2.0	< 2.0 U
72-54-8	4,4'-DDD	2.0	< 2.0 U
1031-07-8	Endosulfan Sulfate	2.0	< 2.0 U
50-29-3	4,4'-DDT	2.0	< 2.0 U
72-43-5	Methoxychlor	9.8	< 9.8 U
53494-70-5	Endrin Ketone	2.0	< 2.0 U
7421-93-4	Endrin Aldehyde	2.0	< 2.0 U
5103-74-2	gamma Chlordane	0.98	< 0.98 U
5103-71-9	alpha Chlordane	0.98	< 0.98 U
8001-35-2	Toxaphene	98	< 98 U
118-74-1	Hexachlorobenzene	0.98	< 0.98 U
87-68-3	Hexachlorobutadiene	0.98	< 0.98 U
789-02-6	2,4'-DDT	2.0	< 2.0 U
3424-82-6	2,4'-DDE	2.0	< 2.0 U
53-19-0	2,4'-DDD	2.0	< 2.0 U
27304-13-8	oxy Chlordane	2.0	< 2.0 U
5103-73-1	cis-Nonachlor	2.0	< 2.0 U
39765-80-5	trans-Nonachlor	2.0	< 2.0 U
2385-85-5	Mirex	2.0	< 2.0 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery	
Decachlorobiphenyl	99.0%
Tetrachlorometaxylene	89.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-3
SAMPLE

Lab Sample ID: IZ26N
LIMS ID: 06-1128
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 02:20
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 26.3 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 7.0
Percent Moisture: 14.4%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.95	< 0.95 U
319-85-7	beta-BHC	0.95	< 0.95 U
319-86-8	delta-BHC	0.95	< 0.95 U
58-89-9	gamma-BHC (Lindane)	0.95	< 0.95 U
76-44-8	Heptachlor	0.95	< 0.95 U
309-00-2	Aldrin	0.95	< 0.95 U
1024-57-3	Heptachlor Epoxide	0.95	< 0.95 U
959-98-8	Endosulfan I	0.95	< 0.95 U
60-57-1	Dieldrin	1.9	< 1.9 U
72-55-9	4,4'-DDE	1.9	< 1.9 U
72-20-8	Endrin	1.9	< 1.9 U
33213-65-9	Endosulfan II	1.9	< 1.9 U
72-54-8	4,4'-DDD	1.9	< 1.9 U
1031-07-8	Endosulfan Sulfate	1.9	< 1.9 U
50-29-3	4,4'-DDT	1.9	< 1.9 U
72-43-5	Methoxychlor	9.5	< 9.5 U
53494-70-5	Endrin Ketone	1.9	< 1.9 U
7421-93-4	Endrin Aldehyde	1.9	< 1.9 U
5103-74-2	gamma Chlordane	0.95	< 0.95 U
5103-71-9	alpha Chlordane	0.95	< 0.95 U
8001-35-2	Toxaphene	95	< 95 U
118-74-1	Hexachlorobenzene	0.95	< 0.95 U
87-68-3	Hexachlorobutadiene	0.95	< 0.95 U
789-02-6	2,4'-DDT	1.9	< 1.9 U
3424-82-6	2,4'-DDE	1.9	< 1.9 U
53-19-0	2,4'-DDD	1.9	< 1.9 U
27304-13-8	oxy Chlordane	1.9	< 1.9 U
5103-73-1	cis-Nonachlor	1.9	< 1.9 U
39765-80-5	trans-Nonachlor	1.9	< 1.9 U
2385-85-5	Mirex	1.9	< 1.9 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	92.0%
Tetrachlorometaxylene	82.5%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-4
SAMPLE

Lab Sample ID: IZ260
LIMS ID: 06-1129
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 02:44
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 8.99 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 6.9
Percent Moisture: 28.4%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	2.8	< 2.8 U
319-85-7	beta-BHC	2.8	< 2.8 U
319-86-8	delta-BHC	2.8	< 2.8 U
58-89-9	gamma-BHC (Lindane)	2.8	< 2.8 U
76-44-8	Heptachlor	2.8	< 2.8 U
309-00-2	Aldrin	2.8	< 2.8 U
1024-57-3	Heptachlor Epoxide	6.5	< 6.5 Y
959-98-8	Endosulfan I	2.8	< 2.8 U
60-57-1	Dieldrin	5.6	< 5.6 U
72-55-9	4,4'-DDE	5.6	< 5.6 U
72-20-8	Endrin	5.6	< 5.6 U
33213-65-9	Endosulfan II	5.6	< 5.6 U
72-54-8	4,4'-DDD	5.6	< 5.6 U
1031-07-8	Endosulfan Sulfate	8.2	< 8.2 Y
50-29-3	4,4'-DDT	24	< 24 Y
72-43-5	Methoxychlor	28	< 28 U
53494-70-5	Endrin Ketone	5.6	< 5.6 U
7421-93-4	Endrin Aldehyde	5.6	< 5.6 U
5103-74-2	gamma Chlordane	5.3	< 5.3 Y
5103-71-9	alpha Chlordane	2.8	< 2.8 U
8001-35-2	Toxaphene	280	< 280 U
118-74-1	Hexachlorobenzene	2.8	< 2.8 U
87-68-3	Hexachlorobutadiene	2.8	< 2.8 U
789-02-6	2,4'-DDT	5.6	< 5.6 U
3424-82-6	2,4'-DDE	5.6	< 5.6 U
53-19-0	2,4'-DDD	5.6	< 5.6 U
27304-13-8	oxy Chlordane	5.6	< 5.6 U
5103-73-1	cis-Nonachlor	5.6	< 5.6 U
39765-80-5	trans-Nonachlor	5.6	< 5.6 U
2385-85-5	Mirex	5.6	< 5.6 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	94.0%
Tetrachlorometaxylene	77.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD **Sample ID: EW-RM06-5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: IZ26P
LIMS ID: 06-1130
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 03:08
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 9.36 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 7.0
Percent Moisture: 25.3%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	2.7	< 2.7 U
319-85-7	beta-BHC	2.7	< 2.7 U
319-86-8	delta-BHC	2.7	< 2.7 U
58-89-9	gamma-BHC (Lindane)	2.7	< 2.7 U
76-44-8	Heptachlor	2.7	< 2.7 U
309-00-2	Aldrin	2.7	< 2.7 U
1024-57-3	Heptachlor Epoxide	2.7	< 2.7 U
959-98-8	Endosulfan I	2.7	< 2.7 U
60-57-1	Dieldrin	9.8	< 9.8 Y
72-55-9	4,4'-DDE	5.3	< 5.3 U
72-20-8	Endrin	5.3	< 5.3 U
33213-65-9	Endosulfan II	5.3	< 5.3 U
72-54-8	4,4'-DDD	5.3	< 5.3 U
1031-07-8	Endosulfan Sulfate	11	< 11 Y
50-29-3	4,4'-DDT	38	< 38 Y
72-43-5	Methoxychlor	27	< 27 U
53494-70-5	Endrin Ketone	5.3	< 5.3 U
7421-93-4	Endrin Aldehyde	5.3	< 5.3 U
5103-74-2	gamma Chlordane	2.7	< 2.7 U
5103-71-9	alpha Chlordane	2.7	< 2.7 U
8001-35-2	Toxaphene	270	< 270 U
118-74-1	Hexachlorobenzene	2.7	< 2.7 U
87-68-3	Hexachlorobutadiene	2.7	< 2.7 U
789-02-6	2,4'-DDT	5.3	< 5.3 U
3424-82-6	2,4'-DDE	5.3	< 5.3 U
53-19-0	2,4'-DDD	5.3	< 5.3 U
27304-13-8	oxy Chlordane	5.3	< 5.3 U
5103-73-1	cis-Nonachlor	5.3	< 5.3 U
39765-80-5	trans-Nonachlor	5.3	< 5.3 U
2385-85-5	Mirex	5.3	< 5.3 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	89.8%
Tetrachlorometaxylene	79.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-6
SAMPLE

Lab Sample ID: IZ26Q
LIMS ID: 06-1131
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 03:33
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 1.87 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 7.1
Percent Moisture: 26.5%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	13	< 13 U
319-85-7	beta-BHC	13	< 13 U
319-86-8	delta-BHC	13	< 13 U
58-89-9	gamma-BHC (Lindane)	13	< 13 U
76-44-8	Heptachlor	13	< 13 U
309-00-2	Aldrin	13	< 13 U
1024-57-3	Heptachlor Epoxide	13	< 13 U
959-98-8	Endosulfan I	13	< 13 U
60-57-1	Dieldrin	27	< 27 U
72-55-9	4,4'-DDE	27	< 27 U
72-20-8	Endrin	27	< 27 U
33213-65-9	Endosulfan II	27	< 27 U
72-54-8	4,4'-DDD	27	< 27 U
1031-07-8	Endosulfan Sulfate	27	< 27 U
50-29-3	4,4'-DDT	27	< 27 U
72-43-5	Methoxychlor	130	< 130 U
53494-70-5	Endrin Ketone	27	< 27 U
7421-93-4	Endrin Aldehyde	27	< 27 U
5103-74-2	gamma Chlordane	13	< 13 U
5103-71-9	alpha Chlordane	13	< 13 U
8001-35-2	Toxaphene	1,300	< 1,300 U
118-74-1	Hexachlorobenzene	13	< 13 U
87-68-3	Hexachlorobutadiene	13	< 13 U
789-02-6	2,4'-DDT	27	< 27 U
3424-82-6	2,4'-DDE	27	< 27 U
53-19-0	2,4'-DDD	27	< 27 U
27304-13-8	oxy Chlordane	27	< 27 U
5103-73-1	cis-Nonachlor	27	< 27 U
39765-80-5	trans-Nonachlor	27	< 27 U
2385-85-5	Mirex	27	< 27 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	90.5%
Tetrachlorometaxylene	81.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-7
SAMPLE

Lab Sample ID: IZ26R
LIMS ID: 06-1132
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 03:57
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 7.0
Percent Moisture: 28.7%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.97	< 0.97 U
319-85-7	beta-BHC	0.97	< 0.97 U
319-86-8	delta-BHC	0.97	< 0.97 U
58-89-9	gamma-BHC (Lindane)	0.97	< 0.97 U
76-44-8	Heptachlor	0.97	< 0.97 U
309-00-2	Aldrin	0.97	< 0.97 U
1024-57-3	Heptachlor Epoxide	4.0	< 4.0 Y
959-98-8	Endosulfan I	0.97	< 0.97 U
60-57-1	Dieldrin	5.6	< 5.6 Y
72-55-9	4,4'-DDE	1.9	< 1.9 U
72-20-8	Endrin	6.6	< 6.6 Y
33213-65-9	Endosulfan II	1.9	< 1.9 U
72-54-8	4,4'-DDD	1.9	< 1.9 U
1031-07-8	Endosulfan Sulfate	5.3	< 5.4 Y
50-29-3	4,4'-DDT	17	< 17 Y
72-43-5	Methoxychlor	9.7	< 9.7 U
53494-70-5	Endrin Ketone	1.9	< 1.9 U
7421-93-4	Endrin Aldehyde	1.9	< 1.9 U
5103-74-2	gamma Chlordane	3.9	< 3.9 Y
5103-71-9	alpha Chlordane	0.97	< 0.97 U
8001-35-2	Toxaphene	97	< 97 U
118-74-1	Hexachlorobenzene	0.97	< 0.97 U
87-68-3	Hexachlorobutadiene	0.97	< 0.97 U
789-02-6	2,4'-DDT	1.9	< 1.9 U
3424-82-6	2,4'-DDE	1.9	< 1.9 U
53-19-0	2,4'-DDD	1.9	< 1.9 U
27304-13-8	oxy Chlordane	1.9	< 1.9 U
5103-73-1	cis-Nonachlor	1.9	< 1.9 U
39765-80-5	trans-Nonachlor	1.9	< 1.9 U
2385-85-5	Mirex	1.9	< 1.9 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	114%
Tetrachlorometaxylene	95.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD **Sample ID: EW-RM06-8**
Page 1 of 1 **SAMPLE**

Lab Sample ID: IZ26S
LIMS ID: 06-1133
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 04:21
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 25.1 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 6.9
Percent Moisture: 13.7%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	1.0	< 1.0 U
319-85-7	beta-BHC	1.0	< 1.0 U
319-86-8	delta-BHC	1.0	< 1.0 U
58-89-9	gamma-BHC (Lindane)	1.0	< 1.0 U
76-44-8	Heptachlor	1.0	< 1.0 U
309-00-2	Aldrin	1.0	< 1.0 U
1024-57-3	Heptachlor Epoxide	1.0	< 1.0 U
959-98-8	Endosulfan I	1.0	< 1.0 U
60-57-1	Dieldrin	2.0	< 2.0 U
72-55-9	4,4'-DDE	2.0	< 2.0 U
72-20-8	Endrin	2.0	< 2.0 U
33213-65-9	Endosulfan II	2.0	< 2.0 U
72-54-8	4,4'-DDD	2.0	< 2.0 U
1031-07-8	Endosulfan Sulfate	2.0	< 2.0 U
50-29-3	4,4'-DDT	2.0	< 2.0 U
72-43-5	Methoxychlor	10	< 10 U
53494-70-5	Endrin Ketone	2.0	< 2.0 U
7421-93-4	Endrin Aldehyde	2.0	< 2.0 U
5103-74-2	gamma Chlordane	1.0	< 1.0 U
5103-71-9	alpha Chlordane	1.0	< 1.0 U
8001-35-2	Toxaphene	100	< 100 U
118-74-1	Hexachlorobenzene	1.0	< 1.0 U
87-68-3	Hexachlorobutadiene	1.0	< 1.0 U
789-02-6	2,4'-DDT	2.0	< 2.0 U
3424-82-6	2,4'-DDE	2.0	< 2.0 U
53-19-0	2,4'-DDD	2.0	< 2.0 U
27304-13-8	oxy Chlordane	2.0	< 2.0 U
5103-73-1	cis-Nonachlor	2.0	< 2.0 U
39765-80-5	trans-Nonachlor	2.0	< 2.0 U
2385-85-5	Mirex	2.0	< 2.0 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	91.8%
Tetrachlorometaxylene	93.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-10
SAMPLE

Lab Sample ID: IZ26T
LIMS ID: 06-1134
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 04:46
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 17.3 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 6.8
Percent Moisture: 31.2%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	1.4	< 1.4 U
319-85-7	beta-BHC	1.4	< 1.4 U
319-86-8	delta-BHC	1.4	< 1.4 U
58-89-9	gamma-BHC (Lindane)	1.4	< 1.4 U
76-44-8	Heptachlor	1.4	< 1.4 U
309-00-2	Aldrin	1.4	< 1.4 U
1024-57-3	Heptachlor Epoxide	4.6	< 4.6 Y
959-98-8	Endosulfan I	1.4	< 1.4 U
60-57-1	Dieldrin	5.5	< 5.5 Y
72-55-9	4,4'-DDE	2.9	< 2.9 U
72-20-8	Endrin	7.7	< 7.7 Y
33213-65-9	Endosulfan II	2.9	< 2.9 U
72-54-8	4,4'-DDD	2.9	< 2.9 U
1031-07-8	Endosulfan Sulfate	7.9	< 7.9 Y
50-29-3	4,4'-DDT	21	< 20 Y
72-43-5	Methoxychlor	14	< 14 U
53494-70-5	Endrin Ketone	2.9	< 2.9 U
7421-93-4	Endrin Aldehyde	2.9	< 2.9 U
5103-74-2	gamma Chlordane	4.4	< 4.4 Y
5103-71-9	alpha Chlordane	1.4	< 1.4 U
8001-35-2	Toxaphene	140	< 140 U
118-74-1	Hexachlorobenzene	1.4	< 1.4 U
87-68-3	Hexachlorobutadiene	1.4	< 1.4 U
789-02-6	2,4'-DDT	2.9	< 2.9 U
3424-82-6	2,4'-DDE	2.9	< 2.9 U
53-19-0	2,4'-DDD	2.9	< 2.9 U
27304-13-8	oxy Chlordane	2.9	< 2.9 U
5103-73-1	cis-Nonachlor	2.9	< 2.9 U
39765-80-5	trans-Nonachlor	2.9	< 2.9 U
2385-85-5	Mirex	2.9	< 2.9 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	106%
Tetrachlorometaxylene	94.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-15
SAMPLE

Lab Sample ID: IZ26G
LIMS ID: 06-1121
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 21:52
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 1.46 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 7.5
Percent Moisture: 41.9%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	17	< 17 U
319-85-7	beta-BHC	17	< 17 U
319-86-8	delta-BHC	17	< 17 U
58-89-9	gamma-BHC (Lindane)	17	< 17 U
76-44-8	Heptachlor	17	< 17 U
309-00-2	Aldrin	17	< 17 U
1024-57-3	Heptachlor Epoxide	66	< 66 Y
959-98-8	Endosulfan I	17	< 17 U
60-57-1	Dieldrin	110	< 110 Y
72-55-9	4,4'-DDE	34	< 34 U
72-20-8	Endrin	94	< 94 Y
33213-65-9	Endosulfan II	34	< 34 U
72-54-8	4,4'-DDD	61	< 61 Y
1031-07-8	Endosulfan Sulfate	62	< 62 Y
50-29-3	4,4'-DDT	270	< 270 Y
72-43-5	Methoxychlor	170	< 170 U
53494-70-5	Endrin Ketone	34	< 34 U
7421-93-4	Endrin Aldehyde	34	< 34 U
5103-74-2	gamma Chlordane	17	< 17 U
5103-71-9	alpha Chlordane	17	< 17 U
8001-35-2	Toxaphene	1,700	< 1,700 U
118-74-1	Hexachlorobenzene	17	< 17 U
87-68-3	Hexachlorobutadiene	17	< 17 U
789-02-6	2,4'-DDT	34	< 34 U
3424-82-6	2,4'-DDE	34	< 34 U
53-19-0	2,4'-DDD	34	< 34 U
27304-13-8	oxy Chlordane	34	< 34 U
5103-73-1	cis-Nonachlor	34	< 34 U
39765-80-5	trans-Nonachlor	34	< 34 U
2385-85-5	Mirex	34	< 34 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	97.0%
Tetrachlorometaxylene	81.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-16
SAMPLE

Lab Sample ID: IZ26C
LIMS ID: 06-1117
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 19:25
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 18.1 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 6.9
Percent Moisture: 28.4%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	1.4	< 1.4 U
319-85-7	beta-BHC	1.4	< 1.4 U
319-86-8	delta-BHC	1.4	< 1.4 U
58-89-9	gamma-BHC (Lindane)	1.4	< 1.4 U
76-44-8	Heptachlor	1.4	< 1.4 U
309-00-2	Aldrin	1.4	< 1.4 U
1024-57-3	Heptachlor Epoxide	4.6	< 4.6 Y
959-98-8	Endosulfan I	1.4	< 1.4 U
60-57-1	Dieldrin	6.5	< 6.5 Y
72-55-9	4,4'-DDE	2.8	< 2.8 U
72-20-8	Endrin	7.5	< 7.5 Y
33213-65-9	Endosulfan II	2.8	< 2.8 U
72-54-8	4,4'-DDD	2.8	< 2.8 U
1031-07-8	Endosulfan Sulfate	6.7	< 6.7 Y
50-29-3	4,4'-DDT	21	< 21 Y
72-43-5	Methoxychlor	14	< 14 U
53494-70-5	Endrin Ketone	2.8	< 2.8 U
7421-93-4	Endrin Aldehyde	2.8	< 2.8 U
5103-74-2	gamma Chlordane	4.3	< 4.3 Y
5103-71-9	alpha Chlordane	1.4	< 1.4 U
8001-35-2	Toxaphene	140	< 140 U
118-74-1	Hexachlorobenzene	1.4	< 1.4 U
87-68-3	Hexachlorobutadiene	1.4	< 1.4 U
789-02-6	2,4'-DDT	2.8	< 2.8 U
3424-82-6	2,4'-DDE	2.8	< 2.8 U
53-19-0	2,4'-DDD	2.8	< 2.8 U
27304-13-8	oxy Chlordane	2.8	< 2.8 U
5103-73-1	cis-Nonachlor	2.8	< 2.8 U
39765-80-5	trans-Nonachlor	2.8	< 2.8 U
2385-85-5	Mirex	2.8	< 2.8 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	59.5%
Tetrachlorometaxylene	48.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-101
SAMPLE

Lab Sample ID: IZ26D
LIMS ID: 06-1118
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 19:50
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 9.13 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 6.8
Percent Moisture: 27.1%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	2.7	< 2.7 U
319-85-7	beta-BHC	2.7	< 2.7 U
319-86-8	delta-BHC	2.7	< 2.7 U
58-89-9	gamma-BHC (Lindane)	2.7	< 2.7 U
76-44-8	Heptachlor	2.7	< 2.7 U
309-00-2	Aldrin	2.7	< 2.7 U
1024-57-3	Heptachlor Epoxide	6.7	< 6.7 Y
959-98-8	Endosulfan I	2.7	< 2.7 U
60-57-1	Dieldrin	11	< 11 Y
72-55-9	4,4'-DDE	5.5	< 5.5 U
72-20-8	Endrin	10	< 10 Y
33213-65-9	Endosulfan II	5.5	< 5.5 U
72-54-8	4,4'-DDD	5.5	< 5.5 U
1031-07-8	Endosulfan Sulfate	12	< 12 Y
50-29-3	4,4'-DDT	38	< 38 Y
72-43-5	Methoxychlor	27	< 27 U
53494-70-5	Endrin Ketone	5.5	< 5.5 U
7421-93-4	Endrin Aldehyde	5.5	< 5.5 U
5103-74-2	gamma Chlordane	6.4	< 6.4 Y
5103-71-9	alpha Chlordane	2.7	< 2.7 U
8001-35-2	Toxaphene	270	< 270 U
118-74-1	Hexachlorobenzene	2.7	< 2.7 U
87-68-3	Hexachlorobutadiene	2.7	< 2.7 U
789-02-6	2,4'-DDT	5.5	< 5.5 U
3424-82-6	2,4'-DDE	5.5	< 5.5 U
53-19-0	2,4'-DDD	5.5	< 5.5 U
27304-13-8	oxy Chlordane	5.5	< 5.5 U
5103-73-1	cis-Nonachlor	5.5	< 5.5 U
39765-80-5	trans-Nonachlor	5.5	< 5.5 U
2385-85-5	Mirex	5.5	< 5.5 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	104%
Tetrachlorometaxylene	84.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-18
SAMPLE

Lab Sample ID: IZ26L
LIMS ID: 06-1126
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 01:55
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 25.2 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 7.2
Percent Moisture: 7.4%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.99	< 0.99 U
319-85-7	beta-BHC	0.99	< 0.99 U
319-86-8	delta-BHC	0.99	< 0.99 U
58-89-9	gamma-BHC (Lindane)	0.99	< 0.99 U
76-44-8	Heptachlor	0.99	< 0.99 U
309-00-2	Aldrin	0.99	< 0.99 U
1024-57-3	Heptachlor Epoxide	0.99	< 0.99 U
959-98-8	Endosulfan I	0.99	< 0.99 U
60-57-1	Dieldrin	2.0	< 2.0 U
72-55-9	4,4'-DDE	2.0	< 2.0 U
72-20-8	Endrin	2.0	< 2.0 U
33213-65-9	Endosulfan II	2.0	< 2.0 U
72-54-8	4,4'-DDD	2.0	< 2.0 U
1031-07-8	Endosulfan Sulfate	2.0	< 2.0 U
50-29-3	4,4'-DDT	2.0	< 2.0 U
72-43-5	Methoxychlor	9.9	< 9.9 U
53494-70-5	Endrin Ketone	2.0	< 2.0 U
7421-93-4	Endrin Aldehyde	2.0	< 2.0 U
5103-74-2	gamma Chlordane	0.99	< 0.99 U
5103-71-9	alpha Chlordane	0.99	< 0.99 U
8001-35-2	Toxaphene	99	< 99 U
118-74-1	Hexachlorobenzene	0.99	< 0.99 U
87-68-3	Hexachlorobutadiene	0.99	< 0.99 U
789-02-6	2,4'-DDT	2.0	< 2.0 U
3424-82-6	2,4'-DDE	2.0	< 2.0 U
53-19-0	2,4'-DDD	2.0	< 2.0 U
27304-13-8	oxy Chlordane	2.0	< 2.0 U
5103-73-1	cis-Nonachlor	2.0	< 2.0 U
39765-80-5	trans-Nonachlor	2.0	< 2.0 U
2385-85-5	Mirex	2.0	< 2.0 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	96.2%
Tetrachlorometaxylene	85.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-19
SAMPLE

Lab Sample ID: IZ26U
LIMS ID: 06-1135
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 05:10
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 25.9 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 6.8
Percent Moisture: 29.5%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.97	< 0.97 U
319-85-7	beta-BHC	0.97	< 0.97 U
319-86-8	delta-BHC	0.97	< 0.97 U
58-89-9	gamma-BHC (Lindane)	0.97	< 0.97 U
76-44-8	Heptachlor	0.97	< 0.97 U
309-00-2	Aldrin	0.97	< 0.97 U
1024-57-3	Heptachlor Epoxide	3.7	< 3.6 Y
959-98-8	Endosulfan I	0.97	< 0.97 U
60-57-1	Dieldrin	5.2	< 5.2 Y
72-55-9	4,4'-DDE	1.9	< 1.9 U
72-20-8	Endrin	5.2	< 5.2 Y
33213-65-9	Endosulfan II	1.9	< 1.9 U
72-54-8	4,4'-DDD	1.9	< 1.9 U
1031-07-8	Endosulfan Sulfate	6.6	< 6.6 Y
50-29-3	4,4'-DDT	18	< 18 Y
72-43-5	Methoxychlor	9.7	< 9.7 U
53494-70-5	Endrin Ketone	1.9	< 1.9 U
7421-93-4	Endrin Aldehyde	1.9	< 1.9 U
5103-74-2	gamma Chlordane	4.3	< 4.4 Y
5103-71-9	alpha Chlordane	0.97	< 0.97 U
8001-35-2	Toxaphene	97	< 97 U
118-74-1	Hexachlorobenzene	0.97	< 0.97 U
87-68-3	Hexachlorobutadiene	0.97	< 0.97 U
789-02-6	2,4'-DDT	1.9	< 1.9 U
3424-82-6	2,4'-DDE	1.9	< 1.9 U
53-19-0	2,4'-DDD	1.9	< 1.9 U
27304-13-8	oxy Chlordane	1.9	< 1.9 U
5103-73-1	cis-Nonachlor	1.9	< 1.9 U
39765-80-5	trans-Nonachlor	1.9	< 1.9 U
2385-85-5	Mirex	1.9	< 1.9 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	125%
Tetrachlorometaxylene	89.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-20
SAMPLE

Lab Sample ID: IZ26K
LIMS ID: 06-1125
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 01:31
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 26.1 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 7.0
Percent Moisture: 15.1%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.96	< 0.96 U
319-85-7	beta-BHC	0.96	< 0.96 U
319-86-8	delta-BHC	0.96	< 0.96 U
58-89-9	gamma-BHC (Lindane)	0.96	< 0.96 U
76-44-8	Heptachlor	0.96	< 0.96 U
309-00-2	Aldrin	0.96	< 0.96 U
1024-57-3	Heptachlor Epoxide	0.96	< 0.96 U
959-98-8	Endosulfan I	0.96	< 0.96 U
60-57-1	Dieldrin	1.9	< 1.9 U
72-55-9	4,4'-DDE	1.9	< 1.9 U
72-20-8	Endrin	1.9	< 1.9 U
33213-65-9	Endosulfan II	1.9	< 1.9 U
72-54-8	4,4'-DDD	1.9	< 1.9 U
1031-07-8	Endosulfan Sulfate	1.9	< 1.9 U
50-29-3	4,4'-DDT	1.9	< 1.9 U
72-43-5	Methoxychlor	9.6	< 9.6 U
53494-70-5	Endrin Ketone	1.9	< 1.9 U
7421-93-4	Endrin Aldehyde	1.9	< 1.9 U
5103-74-2	gamma Chlordane	0.96	< 0.96 U
5103-71-9	alpha Chlordane	0.96	< 0.96 U
8001-35-2	Toxaphene	96	< 96 U
118-74-1	Hexachlorobenzene	0.96	< 0.96 U
87-68-3	Hexachlorobutadiene	0.96	< 0.96 U
789-02-6	2,4'-DDT	1.9	< 1.9 U
3424-82-6	2,4'-DDE	1.9	< 1.9 U
53-19-0	2,4'-DDD	1.9	< 1.9 U
27304-13-8	oxy Chlordane	1.9	< 1.9 U
5103-73-1	cis-Nonachlor	1.9	< 1.9 U
39765-80-5	trans-Nonachlor	1.9	< 1.9 U
2385-85-5	Mirex	1.9	< 1.9 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	87.5%
Tetrachlorometaxylene	78.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-21
SAMPLE

Lab Sample ID: IZ26V
LIMS ID: 06-1136
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/09/06 07:12
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 5.48 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 6.7
Percent Moisture: 26.9%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	4.6	< 4.6 U
319-85-7	beta-BHC	4.6	< 4.6 U
319-86-8	delta-BHC	4.6	< 4.6 U
58-89-9	gamma-BHC (Lindane)	4.6	< 4.6 U
76-44-8	Heptachlor	4.6	< 4.6 U
309-00-2	Aldrin	4.6	< 4.6 U
1024-57-3	Heptachlor Epoxide	4.6	< 4.6 U
959-98-8	Endosulfan I	4.6	< 4.6 U
60-57-1	Dieldrin	9.1	< 9.1 U
72-55-9	4,4'-DDE	9.1	< 9.1 U
72-20-8	Endrin	9.1	< 9.1 U
33213-65-9	Endosulfan II	9.1	< 9.1 U
72-54-8	4,4'-DDD	9.1	< 9.1 U
1031-07-8	Endosulfan Sulfate	9.1	< 9.1 U
50-29-3	4,4'-DDT	15	< 15 Y
72-43-5	Methoxychlor	46	< 46 U
53494-70-5	Endrin Ketone	9.1	< 9.1 U
7421-93-4	Endrin Aldehyde	9.1	< 9.1 U
5103-74-2	gamma Chlordane	4.6	< 4.6 U
5103-71-9	alpha Chlordane	4.6	< 4.6 U
8001-35-2	Toxaphene	460	< 460 U
118-74-1	Hexachlorobenzene	4.6	< 4.6 U
87-68-3	Hexachlorobutadiene	4.6	< 4.6 U
789-02-6	2,4'-DDT	9.1	< 9.1 U
3424-82-6	2,4'-DDE	9.1	< 9.1 U
53-19-0	2,4'-DDD	9.1	< 9.1 U
27304-13-8	oxy Chlordane	9.1	< 9.1 U
5103-73-1	cis-Nonachlor	9.1	< 9.1 U
39765-80-5	trans-Nonachlor	9.1	< 9.1 U
2385-85-5	Mirex	9.1	< 9.1 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	100%
Tetrachlorometaxylene	89.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-23
SAMPLE

Lab Sample ID: IZ26J
LIMS ID: 06-1124
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 23:05
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 25.3 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 7.2
Percent Moisture: 26.4%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.99	< 0.99 U
319-85-7	beta-BHC	0.99	< 0.99 U
319-86-8	delta-BHC	0.99	< 0.99 U
58-89-9	gamma-BHC (Lindane)	0.99	< 0.99 U
76-44-8	Heptachlor	0.99	< 0.99 U
309-00-2	Aldrin	0.99	< 0.99 U
1024-57-3	Heptachlor Epoxide	0.99	< 0.99 U
959-98-8	Endosulfan I	0.99	< 0.99 U
60-57-1	Dieldrin	2.0	< 2.0 U
72-55-9	4,4'-DDE	2.0	< 2.0 U
72-20-8	Endrin	2.0	< 2.0 U
33213-65-9	Endosulfan II	2.0	< 2.0 U
72-54-8	4,4'-DDD	2.0	< 2.0 U
1031-07-8	Endosulfan Sulfate	2.0	< 2.0 U
50-29-3	4,4'-DDT	7.0	< 7.0 Y
72-43-5	Methoxychlor	9.9	< 9.9 U
53494-70-5	Endrin Ketone	2.0	< 2.0 U
7421-93-4	Endrin Aldehyde	2.0	< 2.0 U
5103-74-2	gamma Chlordane	0.99	< 0.99 U
5103-71-9	alpha Chlordane	0.99	< 0.99 U
8001-35-2	Toxaphene	99	< 99 U
118-74-1	Hexachlorobenzene	0.99	< 0.99 U
87-68-3	Hexachlorobutadiene	0.99	< 0.99 U
789-02-6	2,4'-DDT	2.0	< 2.0 U
3424-82-6	2,4'-DDE	2.0	< 2.0 U
53-19-0	2,4'-DDD	2.0	< 2.0 U
27304-13-8	oxy Chlordane	2.0	< 2.0 U
5103-73-1	cis-Nonachlor	2.0	< 2.0 U
39765-80-5	trans-Nonachlor	2.0	< 2.0 U
2385-85-5	Mirex	2.0	< 2.0 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	83.5%
Tetrachlorometaxylene	62.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-24
SAMPLE

Lab Sample ID: IZ26E
LIMS ID: 06-1119
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 20:14
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 1.71 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 7.3
Percent Moisture: 32.0%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	15	< 15 U
319-85-7	beta-BHC	15	< 15 U
319-86-8	delta-BHC	15	< 15 U
58-89-9	gamma-BHC (Lindane)	15	< 15 U
76-44-8	Heptachlor	15	< 15 U
309-00-2	Aldrin	15	< 15 U
1024-57-3	Heptachlor Epoxide	15	< 15 U
959-98-8	Endosulfan I	15	< 15 U
60-57-1	Dieldrin	29	< 29 U
72-55-9	4,4'-DDE	29	< 29 U
72-20-8	Endrin	29	< 29 U
33213-65-9	Endosulfan II	29	< 29 U
72-54-8	4,4'-DDD	29	< 29 U
1031-07-8	Endosulfan Sulfate	29	< 29 U
50-29-3	4,4'-DDT	29	< 29 U
72-43-5	Methoxychlor	150	< 150 U
53494-70-5	Endrin Ketone	29	< 29 U
7421-93-4	Endrin Aldehyde	29	< 29 U
5103-74-2	gamma Chlordane	15	< 15 U
5103-71-9	alpha Chlordane	15	< 15 U
8001-35-2	Toxaphene	1,500	< 1,500 U
118-74-1	Hexachlorobenzene	15	< 15 U
87-68-3	Hexachlorobutadiene	15	< 15 U
789-02-6	2,4'-DDT	29	< 29 U
3424-82-6	2,4'-DDE	29	< 29 U
53-19-0	2,4'-DDD	29	< 29 U
27304-13-8	oxy Chlordane	29	< 29 U
5103-73-1	cis-Nonachlor	29	< 29 U
39765-80-5	trans-Nonachlor	29	< 29 U
2385-85-5	Mirex	29	< 29 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	99.0%
Tetrachlorometaxylene	78.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-25
SAMPLE

Lab Sample ID: IZ26F
LIMS ID: 06-1120
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon.
05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 21:27
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 7.34 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 6.9
Percent Moisture: 41.4%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	3.4	< 3.4 U
319-85-7	beta-BHC	3.4	< 3.4 U
319-86-8	delta-BHC	3.4	< 3.4 U
58-89-9	gamma-BHC (Lindane)	3.4	< 3.4 U
76-44-8	Heptachlor	3.4	< 3.4 U
309-00-2	Aldrin	3.4	< 3.4 U
1024-57-3	Heptachlor Epoxide	14	< 14 Y
959-98-8	Endosulfan I	3.4	< 3.4 U
60-57-1	Dieldrin	11	< 11 Y
72-55-9	4,4'-DDE	6.8	< 6.8 U
72-20-8	Endrin	10	< 10 Y
33213-65-9	Endosulfan II	6.8	< 6.8 U
72-54-8	4,4'-DDD	6.8	< 6.8 U
1031-07-8	Endosulfan Sulfate	12	< 12 Y
50-29-3	4,4'-DDT	42	< 42 Y
72-43-5	Methoxychlor	34	< 34 U
53494-70-5	Endrin Ketone	6.8	< 6.8 U
7421-93-4	Endrin Aldehyde	6.8	< 6.8 U
5103-74-2	gamma Chlordane	8.8	< 8.8 Y
5103-71-9	alpha Chlordane	3.4	< 3.4 U
8001-35-2	Toxaphene	340	< 340 U
118-74-1	Hexachlorobenzene	3.4	< 3.4 U
87-68-3	Hexachlorobutadiene	3.4	< 3.4 U
789-02-6	2,4'-DDT	6.8	< 6.8 U
3424-82-6	2,4'-DDE	6.8	< 6.8 U
53-19-0	2,4'-DDD	6.8	< 6.8 U
27304-13-8	oxy Chlordane	6.8	< 6.8 U
5103-73-1	cis-Nonachlor	6.8	< 6.8 U
39765-80-5	trans-Nonachlor	6.8	< 6.8 U
2385-85-5	Mirex	6.8	< 6.8 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	100%
Tetrachlorometaxylene	75.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-26
SAMPLE

Lab Sample ID: IZ26I
LIMS ID: 06-1123
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 22:40
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 25.5 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 7.2
Percent Moisture: 15.3%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.98	< 0.98 U
319-85-7	beta-BHC	0.98	< 0.98 U
319-86-8	delta-BHC	0.98	< 0.98 U
58-89-9	gamma-BHC (Lindane)	0.98	< 0.98 U
76-44-8	Heptachlor	0.98	< 0.98 U
309-00-2	Aldrin	0.98	< 0.98 U
1024-57-3	Heptachlor Epoxide	0.98	< 0.98 U
959-98-8	Endosulfan I	0.98	< 0.98 U
60-57-1	Dieldrin	2.0	< 2.0 U
72-55-9	4,4'-DDE	2.0	< 2.0 U
72-20-8	Endrin	2.0	< 2.0 U
33213-65-9	Endosulfan II	2.0	< 2.0 U
72-54-8	4,4'-DDD	2.0	< 2.0 U
1031-07-8	Endosulfan Sulfate	2.0	< 2.0 U
50-29-3	4,4'-DDT	2.0	< 2.0 U
72-43-5	Methoxychlor	9.8	< 9.8 U
53494-70-5	Endrin Ketone	2.0	< 2.0 U
7421-93-4	Endrin Aldehyde	2.0	< 2.0 U
5103-74-2	gamma Chlordane	0.98	< 0.98 U
5103-71-9	alpha Chlordane	0.98	< 0.98 U
8001-35-2	Toxaphene	98	< 98 U
118-74-1	Hexachlorobenzene	0.98	< 0.98 U
87-68-3	Hexachlorobutadiene	0.98	< 0.98 U
789-02-6	2,4'-DDT	2.0	< 2.0 U
3424-82-6	2,4'-DDE	2.0	< 2.0 U
53-19-0	2,4'-DDD	2.0	< 2.0 U
27304-13-8	oxy Chlordane	2.0	< 2.0 U
5103-73-1	cis-Nonachlor	2.0	< 2.0 U
39765-80-5	trans-Nonachlor	2.0	< 2.0 U
2385-85-5	Mirex	2.0	< 2.0 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	96.0%
Tetrachlorometaxylene	75.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Pesticides/PCB by GC/ECD
Page 1 of 1

Sample ID: EW-RM06-28
SAMPLE

Lab Sample ID: IZ26H
LIMS ID: 06-1122
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Date Extracted: 02/06/06
Date Analyzed: 02/08/06 22:16
Instrument/Analyst: ECD4/YZ
GPC Cleanup: No
Sulfur Cleanup: Yes
Florisil Cleanup: No
Acid Cleanup: No

Sample Amount: 25.6 g-dry-wt
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
Silica Gel: Yes
pH: 7.0
Percent Moisture: 17.5%

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.98	< 0.98 U
319-85-7	beta-BHC	0.98	< 0.98 U
319-86-8	delta-BHC	0.98	< 0.98 U
58-89-9	gamma-BHC (Lindane)	0.98	< 0.98 U
76-44-8	Heptachlor	0.98	< 0.98 U
309-00-2	Aldrin	0.98	< 0.98 U
1024-57-3	Heptachlor Epoxide	0.98	< 0.98 U
959-98-8	Endosulfan I	0.98	< 0.98 U
60-57-1	Dieldrin	2.0	< 2.0 U
72-55-9	4,4'-DDE	2.0	< 2.0 U
72-20-8	Endrin	2.0	< 2.0 U
33213-65-9	Endosulfan II	2.0	< 2.0 U
72-54-8	4,4'-DDD	2.0	< 2.0 U
1031-07-8	Endosulfan Sulfate	3.8	< 3.8 Y
50-29-3	4,4'-DDT	11	< 11 Y
72-43-5	Methoxychlor	9.8	< 9.8 U
53494-70-5	Endrin Ketone	2.0	< 2.0 U
7421-93-4	Endrin Aldehyde	2.0	< 2.0 U
5103-74-2	gamma Chlordane	1.6	< 1.6 Y
5103-71-9	alpha Chlordane	0.98	< 0.98 U
8001-35-2	Toxaphene	98	< 98 U
118-74-1	Hexachlorobenzene	0.98	< 0.98 U
87-68-3	Hexachlorobutadiene	0.98	< 0.98 U
789-02-6	2,4'-DDT	2.0	< 2.0 U
3424-82-6	2,4'-DDE	2.0	< 2.0 U
53-19-0	2,4'-DDD	2.0	< 2.0 U
27304-13-8	oxy Chlordane	2.0	< 2.0 U
5103-73-1	cis-Nonachlor	2.0	< 2.0 U
39765-80-5	trans-Nonachlor	2.0	< 2.0 U
2385-85-5	Mirex	2.0	< 2.0 U

Reported in µg/kg (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	104%
Tetrachlorometaxylene	89.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Pesticides by GC/ECD Method SW8081A **Sample ID: EW-RM06-3-RB**
Page 1 of 1 **SAMPLE**

Lab Sample ID: IZ26M
LIMS ID: 06-1127
Matrix: Water
Data Release Authorized:
Reported: 02/15/06

QC Report No: IZ26-Windward Environmental
Project: East Waterway Recontam. Mon. 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Date Extracted: 01/31/06
Date Analyzed: 02/07/06 18:52
Instrument/Analyst: ECD4ECD4/YZYZ
GPC Cleanup: No
Sulfur Cleanup: Yes

Sample Amount: 500 mL
Final Extract Volume: 5.0 mL
Dilution Factor: 1.00
pH: 7.0
Florisil Cleanup: No
Silica Gel: No

CAS Number	Analyte	RL	Result
319-84-6	alpha-BHC	0.050	< 0.050 U
319-85-7	beta-BHC	0.050	< 0.050 U
319-86-8	delta-BHC	0.050	< 0.050 U
58-89-9	gamma-BHC (Lindane)	0.050	< 0.050 U
76-44-8	Heptachlor	0.050	< 0.050 U
309-00-2	Aldrin	0.050	< 0.050 U
1024-57-3	Heptachlor Epoxide	0.050	< 0.050 U
959-98-8	Endosulfan I	0.050	< 0.050 U
60-57-1	Dieldrin	0.10	< 0.10 U
72-55-9	4,4'-DDE	0.10	< 0.10 U
72-20-8	Endrin	0.10	< 0.10 U
33213-65-9	Endosulfan II	0.10	< 0.10 U
72-54-8	4,4'-DDD	0.10	< 0.10 U
1031-07-8	Endosulfan Sulfate	0.10	< 0.10 U
50-29-3	4,4'-DDT	0.10	< 0.10 U
72-43-5	Methoxychlor	0.50	< 0.50 U
53494-70-5	Endrin Ketone	0.10	< 0.10 U
7421-93-4	Endrin Aldehyde	0.10	< 0.10 U
5103-74-2	gamma Chlordane	0.050	< 0.050 U
5103-71-9	alpha Chlordane	0.050	< 0.050 U
8001-35-2	Toxaphene	5.0	< 5.0 U
118-74-1	Hexachlorobenzene	0.050	< 0.050 U
87-68-3	Hexachlorobutadiene	0.050	< 0.050 U
789-02-6	2,4'-DDT	0.10	< 0.10 U
3424-82-6	2,4'-DDE	0.10	< 0.10 U
53-19-0	2,4'-DDD	0.10	< 0.10 U
27304-13-8	oxy Chlordane	0.10	< 0.10 U
5103-73-1	cis-Nonachlor	0.10	< 0.10 U
39765-80-5	trans-Nonachlor	0.10	< 0.10 U
2385-85-5	Mirex	0.10	< 0.10 U

Reported in µg/L (ppb)

Pest/PCB Surrogate Recovery

Decachlorobiphenyl	53.8%
Tetrachlorometaxylene	83.2%

Grain Size

Windward Environmental
East Waterway Recontam. Mon. 05-08-09-29

Apparent Grain Size Distribution Summary
Percent Finer Than Indicated Size

Sample No.	Gravel			Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt				Clay	
Phi Size	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Sieve Size (microns)	3/8"	#4	#10 (2000)	#18 (1000)	#35 (500)	#60 (250)	#120 (125)	#230 (62)	31.00	15.60	7.80	3.90	2.00	1.00
EW-RMO6-24	100.0	100.0	96.1	88.6	74.7	57.8	46.4	37.5	28.9	21.6	15.9	11.3	7.7	5.2
EW-RMO6-24	100.0	100.0	96.1	89.0	75.3	58.6	46.8	37.9	29.5	22.0	15.6	11.1	7.6	5.1
EW-RMO6-24	100.0	100.0	95.9	88.2	74.4	57.7	46.3	37.5	30.5	22.1	15.3	11.0	7.4	5.1
EW-RMO6-01	100.0	100.0	99.9	98.3	95.7	84.2	53.8	35.5	25.3	17.3	12.0	8.7	6.2	4.3
EW-RMO6-02	100.0	99.8	72.6	49.0	27.9	16.1	10.9	7.9	6.3	4.7	3.5	2.6	1.7	1.2
EW-RMO6-16	100.0	94.7	86.1	72.1	53.5	35.0	25.2	18.8	15.3	11.4	8.1	5.8	4.0	2.8
EW-RMO6-101	100.0	93.1	85.4	73.0	54.8	36.8	27.6	21.5	15.4	11.3	8.4	5.9	4.1	2.8
EW-RMO6-25	100.0	100.0	99.4	98.4	96.4	91.3	80.0	61.8	46.9	33.7	23.8	16.9	11.5	7.8
EW-RMO6-15	100.0	58.3	54.8	51.1	46.4	40.1	31.8	25.7	22.6	14.2	8.6	6.4	4.6	3.2
EW-RMO6-28	100.0	99.4	84.1	63.7	37.0	16.9	11.2	8.6	7.0	5.3	4.1	3.1	2.1	1.5
EW-RMO6-26	100.0	99.6	72.6	40.7	13.9	5.3	4.4	4.0	3.6	3.0	2.3	1.7	1.1	0.8
EW-RMO6-23	100.0	99.2	80.4	62.6	49.3	43.1	41.9	39.8	33.4	25.3	19.1	14.1	9.7	6.9
EW-RMO6-20	100.0	99.7	69.1	40.6	13.6	4.4	3.4	3.1	2.8	2.4	2.0	1.6	1.1	0.9
EW-RMO6-3	100.0	99.8	78.5	47.2	20.1	7.4	4.9	4.0	4.0	3.5	2.9	2.3	1.7	1.3
EW-RMO6-4	100.0	100.0	99.9	99.4	93.5	67.6	37.7	24.2	18.3	14.3	10.9	8.1	6.1	4.4
EW-RMO6-18	100.0	99.8	64.4	26.7	4.4	0.4	0.2	0.2	NA	NA	NA	NA	NA	NA

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

IZ26

Windward Environmental
East Waterway Recontam. Mon. 05-08-09-29

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay		
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0
EW-RMO6-24	3.9	7.4	13.9	16.9	11.4	9.0	8.6	7.3	5.7	4.5	3.6	2.5	5.2
EW-RMO6-24	3.9	7.2	13.6	16.7	11.8	8.9	8.4	7.5	6.4	4.5	3.5	2.5	5.1
EW-RMO6-24	4.1	7.8	13.8	16.7	11.4	8.8	7.1	8.4	6.8	4.4	3.5	2.3	5.1
EW-RMO6-01	0.1	1.6	2.6	11.5	30.4	18.4	10.1	8.1	5.3	3.3	2.5	1.9	4.3
EW-RMO6-02	27.4	23.6	21.0	11.8	5.2	3.0	1.6	1.5	1.2	0.9	0.8	0.5	1.2
EW-RMO6-16	13.9	14.0	18.6	18.5	9.8	6.3	3.6	3.9	3.3	2.3	1.8	1.2	2.8
EW-RMO6-101	14.6	12.4	18.3	18.0	9.1	6.2	6.0	4.1	2.9	2.5	1.8	1.2	2.8
EW-RMO6-25	0.6	1.0	2.0	5.1	11.2	18.3	14.9	13.1	9.9	6.9	5.4	3.7	7.8
EW-RMO6-15	45.2	3.7	4.7	6.3	8.3	6.1	3.1	8.4	5.6	2.2	1.8	1.3	3.2
EW-RMO6-28	15.9	20.4	26.7	20.1	5.7	2.6	1.7	1.6	1.2	1.0	1.0	0.6	1.5
EW-RMO6-26	27.4	31.9	26.8	8.6	0.9	0.4	0.4	0.6	0.7	0.6	0.6	0.2	0.8
EW-RMO6-23	19.6	17.8	13.3	6.2	1.2	2.1	6.5	8.1	6.2	5.0	4.4	2.8	6.9
EW-RMO6-20	30.9	28.5	27.0	9.2	1.0	0.3	0.2	0.5	0.4	0.4	0.4	0.2	0.9
EW-RMO6-3	21.5	31.3	27.1	12.6	2.6	0.8	0.0	0.6	0.5	0.6	0.6	0.4	1.3
EW-RMO6-4	0.1	0.6	5.9	25.9	29.9	13.5	6.0	3.9	3.4	2.8	2.1	1.6	4.4
EW-RMO6-18	35.6	37.6	22.3	4.1	0.2	0.0	NA	NA	NA	NA	NA	NA	NA

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

IZ26

ANALYTICAL RESOURCES INCORPORATED

Windward Environmental
East Waterway Recontam. Mon. 05-08-09-29

Apparent Grain Size Distribution Summary
Percent Finer Than Indicated Size

Sample No.	Gravel			Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt				Clay	
Phi Size	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Sieve Size (microns)	3/8"	#4	#10 (2000)	#18 (1000)	#35 (500)	#60 (250)	#120 (125)	#230 (62)	31.00	15.60	7.80	3.90	2.00	1.00
EW-RM06-5	100.0	100.0	97.5	90.3	73.3	50.7	29.7	19.4	14.4	10.6	7.8	5.8	4.1	3.0
EW-RM06-5	100.0	100.0	98.4	91.2	73.7	50.4	30.0	19.6	14.3	10.4	7.8	5.7	4.2	2.8
EW-RM06-5	100.0	100.0	96.8	90.0	73.2	50.2	30.0	19.5	14.2	10.3	7.8	5.7	4.2	2.8
EW-RM06-6	100.0	99.5	90.1	77.1	57.6	41.5	30.2	21.9	17.2	12.5	9.0	6.7	4.7	3.1
EW-RM06-7	100.0	100.0	98.8	94.6	82.5	59.2	33.5	22.5	17.6	12.7	9.6	6.9	4.8	2.9
EW-RM06-8	100.0	100.0	81.2	58.3	30.1	10.6	5.8	4.8	4.3	3.6	2.8	2.1	1.5	1.0
EW-RM06-10	100.0	100.0	97.0	91.7	78.2	56.4	38.6	27.2	20.6	15.3	11.2	8.0	5.6	3.7
EW-RM06-19	100.0	53.0	47.5	40.0	29.6	20.1	15.6	12.6	11.6	9.1	6.6	4.7	3.2	2.2
EW-RM06-21	100.0	100.0	80.3	64.0	47.1	34.6	26.8	20.1	15.5	11.9	8.3	6.0	4.3	2.8

2218

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

IZ26

ANALYTICAL RESOURCES INCORPORATED

Windward Environmental
East Waterway Recontam. Mon. 05-08-09-29

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay		
Phi Size	> -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	< 10
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0
EW-RM06-5	2.5	7.2	17.0	22.6	20.9	10.3	5.0	3.9	2.8	2.0	1.7	1.1	3.0
EW-RM06-5	1.6	7.1	17.5	23.3	20.4	10.4	5.3	3.9	2.6	2.1	1.5	1.5	2.8
EW-RM06-5	3.2	6.8	16.8	23.1	20.2	10.5	5.3	3.9	2.5	2.1	1.5	1.3	2.8
EW-RM06-6	9.9	13.0	19.5	16.2	11.3	8.3	4.6	4.7	3.6	2.2	2.0	1.7	3.1
EW-RM06-7	1.2	4.2	12.1	23.4	25.7	11.0	5.0	4.8	3.2	2.6	2.2	1.8	2.9
EW-RM06-8	18.8	22.9	28.2	19.5	4.8	1.0	0.5	0.7	0.8	0.7	0.6	0.4	1.0
EW-RM06-10	3.0	5.3	13.5	21.8	17.8	11.5	6.6	5.3	4.1	3.2	2.4	1.9	3.7
EW-RM06-19	52.5	7.5	10.4	9.6	4.5	3.0	1.0	2.5	2.5	1.9	1.5	1.0	2.2
EW-RM06-21	19.7	16.4	16.8	12.5	7.9	6.7	4.6	3.6	3.6	2.3	1.7	1.5	2.8

2219

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

IZ26

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Client ID: EW-RM06-01
ARI ID: 06-1115 IZ26A

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	66.70
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	1.36

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Client ID: EW-RM06-02
ARI ID: 06-1116 IZ26B

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	83.80
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	0.863

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Client ID: EW-RM06-3
ARI ID: 06-1128 IZ26N

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	85.30
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	0.679

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Client ID: EW-RM06-4
ARI ID: 06-1129 IZ26O

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	68.10
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	1.54

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Client ID: EW-RM06-5
ARI ID: 06-1130 IZ26P

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	69.90
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	1.31

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Client ID: EW-RM06-6
ARI ID: 06-1131 IZ26Q

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	71.00
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	1.32

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Client ID: EW-RM06-7
ARI ID: 06-1132 IZ26R

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	67.40
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	1.30

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Client ID: EW-RM06-8
ARI ID: 06-1133 IZ26S

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	83.60
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	0.880

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized: MJL
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Client ID: EW-RM06-10
ARI ID: 06-1134 IZ26T

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	66.10
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	0.876

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Client ID: EW-RM06-15
ARI ID: 06-1121 IZ26G

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	58.30
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	2.30

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Client ID: EW-RM06-16
ARI ID: 06-1117 IZ26C

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	71.40
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	1.44

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Client ID: EW-RM06-101
ARI ID: 06-1118 IZ26D

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	70.90
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	1.70

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Client ID: EW-RM06-18
ARI ID: 06-1126 IZ26L

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	93.60
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	0.567

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Client ID: EW-RM06-19
ARI ID: 06-1135 IZ26U

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	65.10
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	1.60

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Client ID: EW-RM06-20
ARI ID: 06-1125 IZ26K

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	88.20
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	0.351

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/24/06
Date Received: 01/25/06

Client ID: EW-RM06-21
ARI ID: 06-1136 IZ26V

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	70.00
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	1.66

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Client ID: EW-RM06-23
ARI ID: 06-1124 IZ26J

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	73.20
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	1.33

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Client ID: EW-RM06-24
ARI ID: 06-1119 IZ26E

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	66.00
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	1.39

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Client ID: EW-RM06-25
ARI ID: 06-1120 IZ26F

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	57.60
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	1.34

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Client ID: EW-RM06-26
ARI ID: 06-1123 IZ26I

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	84.40
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	0.500

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Client ID: EW-RM06-28
ARI ID: 06-1122 IZ26H

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/26/06 012606#1	EPA 160.3	Percent	0.01	80.20
Total Organic Carbon	01/27/06 012706#1	Plumb,1981	Percent	0.020	1.16

RL Analytical reporting limit
U Undetected at reported detection limit

REPLICATE RESULTS-CONVENTIONALS
IZ26-Windward Environmental

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 01/30/06

Project: East Waterway Recontam. Mon.
Event: 05-08-09-29
Date Sampled: 01/12/06
Date Received: 01/25/06

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: IZ26E Client ID: EW-RM06-24					
Total Solids	01/26/06	Percent	66.00	66.10 66.50	0.4%
Total Organic Carbon	01/27/06	Percent	1.39	1.56 1.46	5.8%
ARI ID: IZ26U Client ID: EW-RM06-19					
Total Solids	01/26/06	Percent	65.10	64.80 65.40	0.5%
Total Organic Carbon	01/27/06	Percent	1.60	1.69 1.51	5.6%

APPENDIX E . COLLECTION FORMS AND FIELD NOTES

Collection Forms

FORM 1: SURFACE SEDIMENT COLLECTION FORM

Wind Ward environmental LLC SURFACE SEDIMENT COLLECTION FORM

Project Name: EW Recontamination Monitoring 2006 Project no.: 05-08-09-29

Date: 1/12/06 Weather: cool, ~~clear~~ overcast, calm

Sampling Method: 0.1 m^2 van Veen grab Crew: T Do, S Pierce, ~~A Rodriguez~~, E Duffield, ~~K Hurley~~

GRAB DATA	Location ID: EW-RM- 01			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
0909	19.5	—	N	didn't fire
0913	19.6	15	Y	

SAMPLE DATA	Sample ID: EW-RM06- 01			
Sediment type (%)	Sediment color	Sediment odor		Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S	worm
gravel	drab olive	slight	petroleum	
sand (F M C) ~90% trace	brown splotchy	moderate	other:	
silt ~10%	gray	strong		
clay	black			

GRAB DATA	Location ID: EW-RM- 02			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
0930	19.3 sl	15	Y	

SAMPLE DATA	Sample ID: EW-RM06- 02			
Sediment type (%)	Sediment color:	Sediment odor:		Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S	plant debris
gravel ~5%	drab olive splotchy	slight	petroleum	
sand (F M C)*	brown	moderate	other:	
silt ~5%	gray	strong		
clay	black			

* looks like cap material. ~95% (coarse sand material)

FORM 1: SURFACE SEDIMENT COLLECTION FORM

Wind Ward environmental LLC

SURFACE SEDIMENT COLLECTION FORM

Project Name: EW Recontamination Monitoring 2006 Project no.: 05-08-09-29

Date: 1/12/06 Weather: cool, light rain

Sampling Method: 0.1 m^2 van Veen grab Crew: T Do, S Pierce, ~~A Rodriguez~~, E Duffield, ~~K Hurley~~

GRAB DATA	Location ID: EW-RM- 16 and EW-RM-101 (duplicate)			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
0947	19.2	14	Y	

SAMPLE DATA	Sample ID: EW-RM06-		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none / H_2S	worm isolated
gravel ~80%	drab olive	slight / petroleum	
sand (F M C) ~20% *	brown	moderate / other:	
silt - trace	gray	strong	
clay	black		

* 8 cm of silt/fine sand on top of cap (coarse sand) material

GRAB DATA	Location ID: EW-RM- 24			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1000	19.0	15.5	Y	

SAMPLE DATA	Sample ID: EW-RM06- 2		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble (90%)	brown surface	~~none~~ / H_2S	worms pockets ~~pockets~~ 3 isolated sheen
gravel remainder ~5%	drab olive	slight / petroleum	
sand (F M C)	brown	moderate / other:	
silt ~5%	gray	strong	
clay	black		

[redacted]

FORM 1: SURFACE SEDIMENT COLLECTION FORM

Wind Ward environmental LLC

SURFACE SEDIMENT COLLECTION FORM

Project Name: EW Recontamination Monitoring 2006 Project no.: 05-08-09-29

Date: 1/12/06 Weather: cool, light rain

Sampling Method: 0.1 m^2 van Veen grab Crew: T Do, S Pierce, ~~A Rodriquez~~, E Duffield, ~~K Hurley~~

GRAB DATA	Location ID: EW-RM- 25			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1018	19.1	14	Y	

SAMPLE DATA	Sample ID: EW-RM06- 25		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	worms surface
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
silt	gray	strong	
clay	black		

GRAB DATA	Location ID: EW-RM- 15			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1100	16.8	—	N	- rocks caught in jaws - wash out
1104	16.3	—	N	- rocks caught in jaws - wash out.
1108	16.6	—	N	- rocks caught in jaws - wash out

SAMPLE DATA	Sample ID: EW-RM06- 15		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
silt	gray	strong	
clay	black		

FORM 1: SURFACE SEDIMENT COLLECTION FORM

Wind Ward environmental LLC

SURFACE SEDIMENT COLLECTION FORM

Project Name: EW Recontamination Monitoring 2006 Project no.: 05-08-09-29

Date: 1/12/06 Weather: cool, light rain

Sampling Method: 0.1 m^2 van Veen grab Crew: T Do, S Pierce, ~~A Rodriquez, E~~ Duffield, ~~K Hurley~~

GRAB DATA	Location ID: EW-RM- 15			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1112 #4	17m	n/a	N	wash out; rocks in jaws
1117 #5	17	n/a	N	" " - ~9.8 ft fm target
1122 #6	17.8	n/a	N	did not trigger ~9.9 ft fm target

SAMPLE DATA	Sample ID: EW-RM06- 15		
Sediment type (%)	Sediment color	Sediment odor	Comments: ~~(i.e. organic matter,~~ wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	
gravel	drab olive	~~slight~~ petroleum	
sand (F M C)	brown	moderate other:	
silt	gray	strong	
clay	black		

GRAB DATA	Location ID: EW-RM- 15			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1128 #7	18	n/a	N	wash out; ~ 10 ft fm. target
1133 #8	18.5	17	Y	1/2 good to keep - other half OP ~ 9.7 fm target to NW

SAMPLE DATA	Sample ID: EW-RM06- 15		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	
gravel 45%	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	mat material
silt - 55%	gray	strong	sheen layer - multiple pellets
clay	black		

* fine sand layer above gravel layer approx 3-3.5cm

FORM 1: SURFACE SEDIMENT COLLECTION FORM

Wind Ward environmental LLC SURFACE SEDIMENT COLLECTION FORM

Project Name: EW Recontamination Monitoring 2006 Project no.: 05-08-09-29

Date: 1/12/06 Weather: cool, rain

Sampling Method: 0.1 m^2 van Veen grab Crew: T Do, S Pierce, ~~A Rodriquez~~, E Duffield, ~~K Hurley~~

GRAB DATA	Location ID: EW-RM- 29			
Latitude:		Longitude:		Depth
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments: (@top) - fine material depth - ~~discontinuous~~ discontinuous (4cm) fill material depth = 12cm (coarse sand)
1442	19.5	12	Y	

SAMPLE DATA	Sample ID: EW-RM06- 29			
Sediment type (%)	Sediment color	Sediment odor		Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S	worms
gravel	drab olive	slight	petroleum	
sand (F M C) *90%	brown	moderate	other:	
silt trace	gray	strong		
clay	black			

* fill material - coarse sand

GRAB DATA	Location ID: EW-RM- 26			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1456	19.6	15	Y	

SAMPLE DATA	Sample ID: EW-RM06- 26			Depth
Sediment type (%)	Sediment color:	Sediment odor:		Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S	fine material @ surface - NOT visible
gravel trace	drab olive	slight	petroleum	
sand (F M C) *95%	brown	moderate	other:	fill material - 15 cm (coarse sand)
silt trace	gray	strong		
clay	black			

* fill material = coarse sand

FORM 1: SURFACE SEDIMENT COLLECTION FORM

Wind Ward environmental LLC SURFACE SEDIMENT COLLECTION FORM

Project Name: EW Recontamination Monitoring 2006 **Project no.:** 05-08-09-29
Date: 1/26/06 **Weather:** cool, rain
Sampling Method: 0.1 m^2 van Veen grab **Crew:** T Do, S Pierce, ~~A Rodriquez~~, E Duffield, ~~K Hurley~~

GRAB DATA — **Location ID:** EW-RM- 23

Latitude: **Longitude:**

Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1508	20	—	N	chain caught - did not fire
1511	20.3	12	Y	

SAMPLE DATA — **Sample ID:** EW-RM06- 23 (dup)

Sediment type (%)	Sediment color	Sediment odor		Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S	worms
gravel trace	drab olive	slight	petroleum	Silt begins at 2cm and is discontinuous w/ coarse sand to 15 cm
sand (F M C) ~90%	brown	moderate	other:	
silt borderline clay	gray	strong		
clay	black			

* coarse sand = fill material

GRAB DATA — **Location ID:** EW-RM- 20

Latitude: **Longitude:**

Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1524	21.8	14	Y	

SAMPLE DATA — **Sample ID:** EW-RM06- 20

Sediment type (%)	Sediment color:	Sediment odor:		Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S	none
gravel trace	drab olive	slight	petroleum	Coarse sand 0-14 cm
sand (F M C) ~95%	brown	moderate	other:	
silt trace	gray	strong		
clay	black			

coarse sand = fill material

FORM 1: SURFACE SEDIMENT COLLECTION FORM

Wind Ward environmental LLC SURFACE SEDIMENT COLLECTION FORM

Project Name: EW Recontamination Monitoring 2006 Project no.: 05-08-09-29

Date: 9/12/06 Weather: cool, rain

Sampling Method: 0.1 m^2 van Veen grab Crew: T Do, S Pierce, ~~A Rodriquez~~, E Duffield, ~~K Hurley~~

GRAB DATA	Location ID: EW-RM- 18			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1533	19.8	13	Y	coarse sand = 0-13cm

SAMPLE DATA	Sample ID: EW-RM06- 18		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	none
gravel	drab olive	slight petroleum	
sand (F M C)*	brown	moderate other:	
silt	gray	strong	
clay	black		

* coarse sand = fill material

GRAB DATA	Location ID: EW-RM-			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:

SAMPLE DATA	Sample ID: EW-RM06-		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
silt	gray	strong	
clay	black		

FORM 1: SURFACE SEDIMENT COLLECTION FORM

Wind Ward environmental LLC

SURFACE SEDIMENT COLLECTION FORM

Project Name: EW Recontamination Monitoring 2006 Project no.: 05-08-09-29

Date: 1/24/06 Weather: Sunny, Cool

Sampling Method: 0.1 m^2 van Veen grab Crew: T Do, S Pierce, A Rodriquez, ~~E Duffield, K Hurley~~

GRAB DATA	Location ID: EW-RM-3			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1321	19.1	15	Y	

SAMPLE DATA	Sample ID: EW-RM06-3		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none (H_2S)	0-13cm cap layer
gravel	drab olive	slight petroleum	13-15 fine sand & silt
sand (F M C) 95% Fine 5%	brown	moderate other:	
silt Trace <5%	gray	strong	
clay	black		

GRAB DATA	Location ID: EW-RM-4			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1333	19.0	10	N	Insufficient penetration
1338	18.9	11	Y	

SAMPLE DATA	Sample ID: EW-RM06-4		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	Discontinuous brown surface	none H_2S	Organic matter, worms
gravel	drab olive	slight petroleum	
sand (F M C) 90%	brown	moderate other:	
silt - 10%	gray	strong	
clay	black		

FORM 1: SURFACE SEDIMENT COLLECTION FORM

Wind Ward environmental LLC SURFACE SEDIMENT COLLECTION FORM

Project Name: EW Recontamination Monitoring 2006 Project no.: 05-08-09-29

Date: 1/24/06 Weather: Sunny, cool, light wind

Sampling Method: 0.1 m^2 van Veen grab Crew: T Do, S Pierce, A Rodriquez, ~~E Duffield, K Hurley~~

GRAB DATA	Location ID: EW-RM- 5			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1351	19.0	15	Y	

SAMPLE DATA	Sample ID: EW-RM06- 5		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	~~Discontinuous~~ brown surface	(none) H_2S	Wood debris, worms, bubble snail
gravel 5, 10%	drab olive	slight petroleum	0-1cm Fine sand, silt
sand (F M C) 80%	brown	moderate other:	1-3cm Med sand
silt 5%	(gray)	strong	3cm-15cm Coarse sand (cap)
clay	black		

GRAB DATA	Location ID: EW-RM- 6			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1404	19.0	(re) 17 15	Y	

SAMPLE DATA	Sample ID: EW-RM06- 6		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none (H_2S)	Woody debris, leaf litter, worms
gravel 30%	drab olive	(slight) petroleum	Slight sheen
sand (F M C) 70%	brown	moderate other:	0-3cm med sand & silt
silt Trace <5%	(gray)	strong	3-15cm Coarse sand
clay	black surface		

FORM 1: SURFACE SEDIMENT COLLECTION FORM

Wind Ward environmental LLC

SURFACE SEDIMENT COLLECTION FORM

Project Name: EW Recontamination Monitoring 2006 Project no.: 05-08-09-29

Date: 1/24/06 Weather: Sunny, cool, light wind

Sampling Method: 0.1 m^2 van Veen grab Crew: T Do, S Pierce, A Rodriquez, ~~E Duffield, K Hurley~~

GRAB DATA	Location ID: EW-RM-7			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1415	18.6	13	Y	

SAMPLE DATA	Sample ID: EW-RM06-7		
Sediment type (%)	Sediment color	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none / H_2S	Slight pocket sheen
gravel	drab olive	slight / petroleum	Organic matter, wood debris, leaf litter, worms
sand (F M C) 90% 10%	brown	moderate / other:	11-13 cm (Cap layer) Coarse sand
silt	gray	strong	
clay	black		

GRAB DATA	Location ID: EW-RM-8			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1426	18.4	13	Y	

SAMPLE DATA	Sample ID: EW-RM06-8		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	Discontinous brown surface	none / H_2S	Wood debris, worms
gravel	drab olive	slight / petroleum	0-13 cm (Cap layer) Coarse Sand
sand (F M C) Trace <5% 95%	brown	moderate / other:	
silt	gray	strong	
clay	black		

FORM 1: SURFACE SEDIMENT COLLECTION FORM

WindWard environmental LLC SURFACE SEDIMENT COLLECTION FORM

Project Name: EW Recontamination Monitoring 2006 Project no.: 05-08-09-29

Date: 1/24/06 Weather: Sunny, cool, light wind

Sampling Method: 0.1 m^2 van Veen grab Crew: T Do, S Pierce, A Rodriquez, ~~E Duffield, K Hurley~~

GRAB DATA	Location ID: EW-RM- 10			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1437	18.3	16	Y	

SAMPLE DATA	Sample ID: EW-RM06- 10		
Sediment type (%)	~~Sediment color~~ Discontinuous	Sediment odor	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	Organic matter, worms, wood debris, leaf litter
gravel 100%	drab olive	slight petroleum	0-5cm Fine-med sand 100%
sand (F M C) 100%	brown	moderate other:	5-16cm Coarse sand (cap) 100%
silt Trace < 5%	gray	strong	
clay	black		

GRAB DATA	Location ID: EW-RM- 19			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1448	16.8	NA	N	Wash out, large subangular gravel
1453	16.0	NA	N	Chain lock, empty grab
1456	16.0	NA	N	Wash out

SAMPLE DATA	Sample ID: EW-RM06- 19		
Sediment type (%)	Sediment color:	Sediment odor:	Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none H_2S	
gravel	drab olive	slight petroleum	
sand (F M C)	brown	moderate other:	
silt	gray	strong	
clay	black		

FORM 1: SURFACE SEDIMENT COLLECTION FORM

Wind Ward environmental LLC

SURFACE SEDIMENT COLLECTION FORM

Project Name: EW Recontamination Monitoring 2006 Project no.: 05-08-09-29

Date: 1/24/06 Weather: Sunny, Cool

Sampling Method: 0.1 m^2 van Veen grab Crew: T Do, S Pierce, A Rodriquez, ~~E Duffield, K Hurley~~

GRAB DATA	Location ID: EW-RM- 19 Cont'd			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1459	NA	NA	N	Grab flipped, empty grab
1502	NA	NA	N	25 ft NW of target, Large gravel caught in jaws
1506	17.9	12cm	Y	½ grab sample kept; 28.7 ft NW of target location

SAMPLE DATA	Sample ID: EW-RM06- 19			
Sediment type (%)	~~Sediment color~~ Discontinous	Sediment odor		Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S	organic matter, pockets of sheen
gravel subangular 20%	drab olive	slight	petroleum	0-2 cm Med-fine sand & silt
sand (F M C)	brown	moderate	other:	2-12 cm Med-fine sand w/ subangular gravel
silt 80%	gray	strong		
clay	black			

GRAB DATA	Location ID: EW-RM- 21			
Latitude:		Longitude:		
Grab time	Bottom depth (m)	Penetration depth (cm)	Acceptable grab (Y/N)	Comments:
1518	18.0	14	Y	

SAMPLE DATA	Sample ID: EW-RM06- 21			
Sediment type (%)	Sediment color:	Sediment odor:		Comments: (i.e. organic matter, wood debris, shell fragments, sheen, fauna, field duplicate, rinsate blank, etc.)
cobble	brown surface	none	H_2S	Worms, wood debris
gravel 45% Trace 45%	drab olive	slight	petroleum	0-3cm Fine with trace med sand
sand (F M C) 100%	brown	moderate	other:	3-14cm Coarse sand (cap)
silt	gray	strong		
clay	black			

Field Notes

2 SPierce 1/11/05

1/11/05 EW Recontamination Monitoring
Coring / Grab
Crew: Thai Do
Emily Duffield } WW
Shannon Pierce
Jesse Bennett - Parametrix
Charlie Eaton } BioMarine
Tom Putnam

0700 - Meet @ Harbor Island Marina
Weather - wind (15-25 knots)
0710 - C. Eaton + crew decided wind + weather conditions are unsafe for sampling conditions - will attempt sampling tomorrow (1/12)

0715 - Leave H. Island Marina.

1/11/05 SPierce

S. Pierce 3

1/12/05 EW Recontamination Monitoring
coring / grab sampling
Crew: Thai Do
Emily Duffield → WW
Shannon Pierce
Jesse Bennett → Parametrix
Charlie Eaton → BioMarine
Tom Putnam
weather: cool, calm, no ppt.

0700 - Meet @ H. Island Marina; mobilization of boat + equip for sampling

0738 - Head to EW for sampling
Beginning in Zone 3 (15, 19, 22)

0755 - Go over Health + Safety Plan + equipment procedure
* Nav. difficult b/c of current in EW

0823 EW-RM-15 → core sampling (took core)
water depth = ~~17 m~~ SP 56 ft
location - (recorded on C. Eaton's nav. equipment)

EM-RM-15 (core-attempt 1)
penetration depth: n/a; core was retrieved empty. will attempt again added more weight (total = 6 weights) 360 lbs.

0834 EW-RM-15 (core-attempt 2)
water depth = 52 ft
sed. recovery depth = 60 cm*
* will allow sed. to settle b/f recording depth

~~EW-RM-19 (core-attempt 1)~~ SP

0840 - core catches + collar fell off core + into water - will not be able to core sample until we get another catcher

0845 - Called Floyd McCarthy + left a msg. to get another catcher

0850 - Talked to Angie Rodriguez to coordinate w/ Floyd + pick up new catcher.

0900 - Will sample stations in Zone 1, where only a grab is necessary

We will sample ~~depth~~ SP for chemistry grabs until we have the core catcher + resume zone 3.

0909 EW-RM-1 (grab only - attempt 1)
water depth = ~~19.5m~~ SP 19.5m
(tide = 2.6 m)
grab did not fire

0913 EW-RM-1 (grab only - attempt 2)
water depth = 19.6 m
penetration = 15 cm

0930 ~~19.3~~ SP - EW-RM-2 (grab only - attempt 1)
water depth = 19.3 cm
penetration = 15 cm

0920 - 0930 * Decision Communication w/ Project Mngr Susie McGroddy for Angie's access to T-25_0kld.
For sample EW-RM-15, we discussed the recovery (only 60 cm) but the 2-2.5 cm overlying fine sand, so clearly we will need take chemistry (grab). Susie agreed no need to retake core to meet min. penetration depth (80 cm) b/c would result in chemistry grab s.

6 1/12/05 S Pierce

0947 - EW-RM-16 (grab only - attempt 1)
water depth = 19.2 m + replicate
penetration = 14cm EW-RM-101

1000 - EW-RM-24 (grab only - attempt 1)
water depth = 19.0m ~~+ replicate~~ SP
penetration = 15.5 cm ~~EW-RM-101~~ SP
MS/MSD samples collected

1017 - EW-RM-25 (grab only - attempt 1)
water depth = 19.1 cm
penetration = 14cm

1025 - Communication w/ Angie - will retreive grab core catcher fm. her.

1040 - Will plan to collect a grab for chemistry @ EW-RM-15. Based on conversation w/ S. McGroddy, the core taken @ 0834 is acceptable for triggering chemistry grab b/c there was clearly a 2-2.5 cm layer ~~above~~ of fine sand above cap material. even though there was only 60 cm penetration.

1/12/05 S. Pierce 7

Core Description

1050 - EW-RM-15 (fm. 0834 collection time)
water depth = 52ft
Sed. recovery = 60cm
time sampled = 0834
depth of coarse sand (cap layer) = 23cm
~~depth~~ (present) and gravel present.
depth of fine sand layer above cap material = 2.5 cm
org. material = none visible
will take chemistry grab based on evidence of fine sand layer (2.5cm) above cap
photos = 1963, 1964

1052 - picked up core material (catcher) fm. Angie @ T-25.

1100 - EW-RM-15 (grab - attempt 1)
water depth = 16.8 m
penetration = n/a - rocks caught in jaws - wash out

1104 - EW-RM-15 (grab - attempt 2)
water depth = 16.3 m
penetration = n/a rocks caught in jaws - wash out

8/12/05 S. Pierce

1108 EW-RM-15 (grab-attempt 3)
water depth = 16.6 m
penetration depth = rocks in jaws - washed out

1112 EW-RM-15 (grab-attempt 4)
water depth = 17 m
penetration depth = rocks in jaws - wash out

1115 - Communication w/ S. McGroddy that if after several grab attempts, its ok to apply BBJ and move several meters out fm station but to note whether there is a presence of fine material above cap (based on what triggered sampling).

Moved ~10 ft + took sample

1117 EW-RM-15 (grab-attempt 5)
water depth = 17m
penetration depth = n/a; wash out
~9.8 ft fm. target to N; will try to sample ~10 ft to W of sample

8/12/05 S. Pierce

1122 EW-RM-15 (grab-attempt 6)
water depth = 17.8 m
penetration depth = n/a - did not fire b/c grab flipped over - will attempt again slightly off this new location

1128 EW-RM-15 (grab-attempt 7)
water depth = 18m
penetration depth = n/a - washed out w/ rocks in jaw

1133 EW-RM-15 (grab-attempt 8)
water depth = 18.5 m
penetration depth = 17 cm (½ OP ½ ok to take)
9.7 ft off target to NW of station

1145 - lunch break before switching equipment back over to corer.

1220 - change over to coring equipment will return to Zone 3 to complete mound coring; added weight
Weights on corer = 480 lbs

1/12/05 S. Perri

1240 EW-RM-19 (core-attempt 1)
water depth = 18.5 m
penetration depth = 14 cm - insufficient penetration - will sample again

1248 EW-RM-19 (core-attempt 2)
water depth = 18 m
pen. depth = 14 cm - insufficient penetration

1254 EW-RM-19 (core-attempt 3)
water depth = 18.1 m
pen. depth = 2-3 cm - insufficient penetration - will move ~10 ft fm target

1300 Navigation problems w/ computer - reboot computer

1313 ~~1258~~ EW-RM-19 (core-attempt 4)
water depth = 19 m
pen. depth = n/a - only a few rocks
*moved ~10 ft fm. target @ attempt 4 (11.5 ft)

1/12/05 S. Perri

Will move to EW-RM-22 and attempt

1316 - Communication w/ S. McGroddy. We were told to move on fm EW-RM-19 because of over 4 failed attempts to penetrate through gravel layer. We will let her know how EW-RM-22 goes

1322 EW-RM-22 (core-attempt 1)
water depth = 17 m
pen. depth = 4 cm - insufficient pen. retained some gravel - will move slightly @ target

1327 EW-RM-22 (core-attempt 2)
water depth = 17.3 m
pen depth = n/a - water only; no sed/rocks
9.3 ft off target

1329 EW-RM-22 (core-attempt 3)
water depth = 17.6
pen depth = n/a - water only; no sed/rocks
14.6 ft target

1333 - Communication w/ Susie on results of sampling attempts @ EW-RM-22. Given direction to do no more sampling attempts @ EW-RM-22 or on mound. Will move onto Zone 2 Area.

1338 EW-RM-17 (core-attempt 1)
water depth = 21 m
pen depth = <1 cm; coarse sand fill captured.

1345 - EW-RM-17 (core-attempt 2)
water depth = 21.2 m
penetr. depth = <1 cm, coarse sand
~7.7 ft. fm target

1350 EW-RM-17 (core-attempt 3)
water depth = 21 m
pen. depth = <1 cm - gravel / coarse sand
*speed up RPMs on boat in attempt to get max force to drive core into sed - could be falling coren.
6.6 ft fm. target.

Will move on fm EW-RM-17 because of 3 failed attempts, moving on to EW-RM-12

1404 EW-RM-12 (core-attempt 1)
water depth = 20.2 m
pen. depth = <5 cm; coarse sand (retained some) insuff. penetration

1409 EW-RM-12 (core-attempt 2)
water depth = ~~17.8 m~~ SP 20.5 m
pen depth = n/a - water only
no sed on rocks

1406 Left msg. for Susie about sampling unsuccess + the possibility of switching to a vibracore. J. Bennett says vibracore (4") is avail. for rent fm. Parametrix.

1412 - Decided to move to EW-RM-28 (furthest loc. fm mound area)

4/12/06 S. Pierci

1418 - EW-RM-28 (core-attempt 1)
water depth = 21.6m
pen. depth = <1 cm - coarse sand

1422 EW-RM-28 (core-attempt 2)
Water depth = 21.2 m
pen. depth = <1 cm coarse sand

1428 - Communication w/ S. McGroddy to finish core sampling - is not yielding successful results. We will go to the locations in Zone 2 where both a chemistry grab + core are required.

1430 - switch sampling equip.

~~1436~~ EW-RM-28 (grab - attempt 1)

1442 water depth = 19.5 m * photos 1965, 1966
pen. depth = 12 cm

1456 EW-RM-26 (grab - attempt 1)
water depth = 19.6 m
pen depth = 15 cm

4/12/06 S. Pierci

1508 EW-RM-23 (grab attempt 1)
water depth = 20 m
pen. depth = n/a; chain caught - misfire

1511 EW-RM-23 (grab attempt 2)
water depth = 20.3 m
pen. depth = 12 cm

1524 EW-RM-20 (grab attempt 1)
water depth = 21.8 m
pen. depth = 14 cm

1533 EW-RM-18 (grab attempt 1)
water depth = 19.8 m
pen. depth = 13 cm

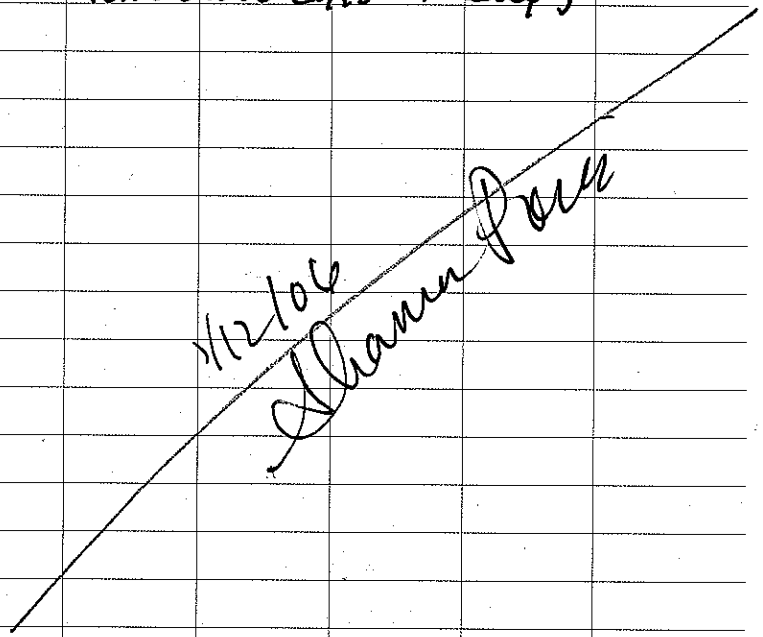
1540 Finished sampling for day

Note - EPA oversight - J. Bennett cut thumb on barrel of corer - washed + covered w/ band-aid; minor cut

16 1/12/06 S. Pierce

1550 – Head back to Harbor Island marina

1552 Call Susie to let her know we are done sampling for the day. We will likely try to use parametrix's vibracore for coring next week. No sampling will occur on tomorrow (1/13 – Friday)



17 1/23/06 A. Rodriguez

0730 Arrive at Harbor Island Marina
Weather: Overcast, mist, fog
Crew: A. Rodriguez (Windward)
T. Do (Windward)
S. Pierce (Windward)
Jesse Bennett (Parametrix, oversight)
Charlie Eaton (Biomarine boat operator)
Tom Putnam (Biomarine)

0745 The minimum acceptable penetration for core samples is 80cm = 31.5 in. This is the initial day of sampling with Vibracore equipment. Field crew is setting up. Photos taken.

0805 Motor to EW-RM-5,
Core sampling location
Core attempt 1 @ EW-RM-5
* Penetration ~~water~~ depth (initial) = 54 ft
* Penetration ~~water~~ depth (final) = 59 ft
Sed recovery = 39 in
Time sampled: 0847
Depth of coarse sand (cap layer) = 10 in.
Surface sediment fine above cap layer = 2 in
No visible organic material

1/23/06 EW-RM-5 A. Rodriguez

Water Depth = 19.6 m

Because surface sediment observed overlying the sand layer is > 2cm, a chemistry sample (grab) needs to be collected.

* NOTE Penetration depths at EW-RM-5 location were estimated values b/c the vibracore was setting at angle.

Photos taken 62-67

0920 EW-RM-9, Core sampling location

Core attempt 1, Photos taken 68-69

Penetration depth, initial = 54ft

Penetration depth, final = 60ft

Water depth = 19.7 m

Sed Recovery = 52 in.

Time sampled = 0924

Depth of coarse sand (cap layer) = 12 in

~~DF~~ Sand layer present

Surface sediment above cap layer = 1 cm

Visible organic material consisting of leaf litter in top 1cm layer

Because surface sediment overlying the sand layer is < 2cm, a chemistry (GRAB) sample is NOT to be collected.

1/23/06 A. Rodriguez

0945 EW-RM-11

Core attempt 1, Photos taken 70-71

Penetration depth, initial = 54 ft

Penetration depth, final = 61

Water depth = 19.8 m

Sed recovery = 80 in.

Time sampled = 0958

Depth of coarse sand (cap layer) = 9 in

Sand layer present

Surface sediment above cap layer 1.5 cm

Visible organic material = none

Because the depth of the coarse sand (cap layer) is 10cm & overlying surface sediment is < 2cm, a chemistry (GRAB) sample is NOT needed for collection.

1035 EW-RM-19, core location on mound

Core attempt 1

Penetration Depth, initial = 49 ft

Penetration Depth, final = 53.7 ft

Water depth = 18 m

Sed recovery = None, core was lost

Time sampled = 1044

~~Depth of coarse sand (cap layer) =~~ (AR)

1/23/06 A. Rodriguez

EW-RM-19 cont'd

1048 Vibracore core & core tube were lost upon retrieval

1100 Core attempt 2, Photos taken 72-74
Penetration depth, initial = 48ft
Penetration depth, final = 53 ft
Water depth = 17.8m
Sed Recovery = ~~57in~~ 53in
Time Sampled = 1112
Depth of coarse sand layer (cap layer) = 11.5in
Sand layer present
Surface sediment above cap layer = 2.0cm
Visible organic material = none

Cut open core tube to visually inspect composition of sand layer. Coarse sand with sub angular gravel dispersed throughout. Photos taken 76-81

After communication w/ Susie McGroddy she directed us to collect a grab chemistry sample at EW-RM-19 on 1/24

1/23/06 A. Rodriguez

1136 EW-RM-22, core location on mound
Penetration depth, initial = 44.5ft
Penetration depth, final = 50ft
Water depth = 16.1m
Sed Recovery = 52 in.
Time sampled = 1138
Depth of coarse sand layer (cap layer) = 17 in.
Sand layer present
Surface sediment above cap layer = 1.5cm
Photo taken 75
No visible organic material
NO chemistry (grab) sample needed for collection b/c depth of cap layer > 10cm & surface sediment overlying the cap layer is ≥ 2cm.

1200 LUNCH BREAK; called Susie & gave her the progress of the field effort.

1236 Motor to EW-RM-12
Core attempt 1, Photo taken 82
Penetration depth, initial = 57 ft
Penetration depth, final = 62.5ft
Water depth = 19.9m
Sed Recovery = 48 in

1/23/06 A. Rodriguez

EW-RM-12 Cont'd
Time Sampled = 1305
Depth of coarse sand layer (cap layer) = 12 in. Sand layer present
Surface sediment above cap layer = 1 cm
Visible organic material = None
No chemistry (Grab) sample needed for collection b/c depth of cap layer > 10cm & material overlying sand layer is < 2 cm.

1327 EW-RM-13
Core attempt 1, Photo taken 83
Penetration depth, initial = 51 ft
Penetration depth, final = 55.5 ft
Water depth = 19.0m
Sed Recovery = 63 in
Time Sampled = 1340
Depth of coarse sand layer (cap layer) = 9.5 in
Sand layer is present
Surface sediment above cap layer = 1 cm
Visible organic material = None
No chemistry (Grab) sample needed for collection b/c depth of cap layer > 10cm & material overlying sand layer is < 2 cm.

1/23/06 A. Rodriguez

1356 EW-RM-14
Core attempt 1, photos taken 84-85
Penetration depth, initial = 50.5 ft
Penetration depth, final = 55.5 ft
Water depth = 19.0m
Sed Recovery = 72 in.
Time sampled = 1407
Depth of coarse sand layer (cap layer) = 11 in.
Sand layer is present
Surface sediment above cap layer = 1.5 cm
Visible organic material = none
No chemistry (GRAB) sample needed for collection b/c depth of cap layer is > 10 cm & material overlying sand layer is < 2 cm.

1423 EW-RM-17
Core attempt 1, Photos taken 86-87
Penetration depth, initial = 50.5 ft
Penetration depth, final = 54.5 ft
Water depth = 18.6m
Sed Recovery = 60 in
Time Sampled = 1439
Depth of coarse sand layer (cap layer) = 8 in.

1/23/06 A. Rodriguez

EW-RM-17 Cont'd
Sand layer is present
Surface sediment above cap layer = not visible
Visible organic material = none
No chemistry (grab) sample needed to be collected b/c cap layer is 7 10cm & material overlying sand layer is < 2cm

1500 EW-RM-21
Core attempt 1, Photo taken 88
Penetration Depth, initial = 49 ft
Penetration Depth, final = 54 ft
Water Depth = 18.4m
Sed Recovery = 49 in.
Time sampled = 1508
Depth of coarse sand layer (cap layer) = 14 in.
Sand layer present
Surface sediment above cap layer = 3 cm
Visible organic material = None
AR ~~NR~~ chemistry (grab) sample required
b/c ~~cap layer is > 10cm~~ AR & material
overlying cap layer is > 2 cm

1/23/06 A. Rodriguez

1524 EW-RM-27
Core attempt 1, Photo taken 89
Penetration depth, initial = 48 ft
Penetration depth, final = 52.5 ft
Water depth = 18.1 m
Sed Recovery = 47 in.
Time sampled = 1534
Depth of sand layer (cap layer) = 6.5 in
Sand layer present & pockets of sheen
Surface sediment above cap layer = 1cm
Visible organic material = none
No chemistry (grab) sample required
b/c depth of cap layer is > 10cm & material overlying cap layer is < 2 cm

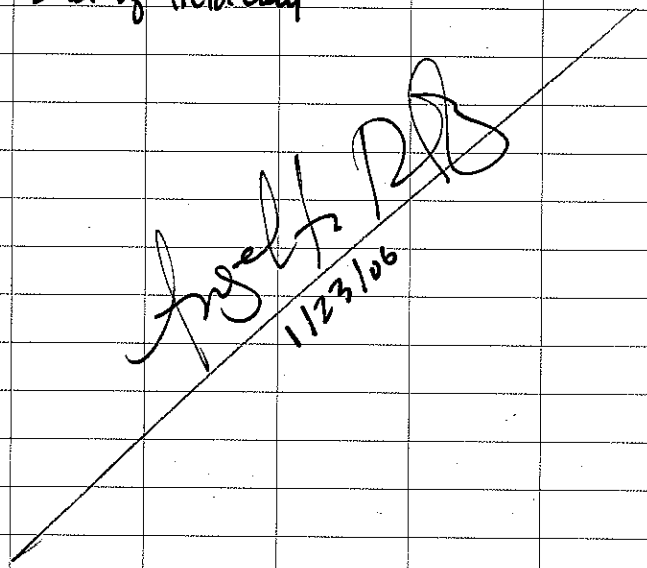
1550 EW-RM-26
Core attempt 1
Penetration depth, initial = 46 ft
Penetration depth, final = 51 ft
Water depth = 17.8 m
Sed Recovery = 32 in.
Time sampled = 1558
Depth of sand layer (cap layer) = 16 in.
Sand layer present

1/23/06 A. Rodriguez

EW-RM-26
Surface sediment above cap layer = To be determined 1/24 morning b/c suspended material needs time to settle.
Visible organic material = None

1612 Head back to Harbor Island Marina

1640 Arrive at Harbor Island
End of field day



1/24/06 A. Rodriguez

0730 Arrive at Harbor Island Marina
Crew: Angelita Rodriguez (Windward)
Shannon Pierce (Windward)
Thai Do (Windward)
Charlie Eaton (BioMarine)
Tom Putnam (BioMarine)

Weather: Foggy, cool

0744 Continue core description for EW-RM-26
Surface sediment above cap layer = 4 cm
Photos taken 90-91

0750 Motor to EW-RM-28
Core attempt 1, Photos taken 97-98
Penetration Depth, initial = 54 ft
Penetration Depth, final = 59 ft
Water Depth = 19.6m
Sed Recovery = 48 in.
Time Sampled = 0817
Depth of sand layer (cap layer) = 9.5 in.
Sand layer present

1/24/06 A. Rodriguez

EW-RM-28 Cont'd
Surface sediment above cap layer = <1cm
Visible organic material not present

0830 EW-RM-23
Core attempt 1, Photos taken 102-104
Penetration Depth, initial = 54 ft
Penetration Depth, final = 59 ft
Water Depth = 20 ft m
Sed Recovery = 54 in
Time Sampled = 0849
Depth of sand layer (cap layer) = 9 in
Sand layer is present
Surface sediment above cap layer < 8 cm
Visible organic material = worms are present in cap layer

0901 EW-RM-3
Core attempt 1, Photo taken 99
Penetration Depth, initial = 55 ft
Penetration Depth, final = 59.5 ft
Water Depth = 19.9m
Sed Recovery = 62 in
Time Sampled = 0912

1/24/06 A. Rodriguez

EW-RM-3 Cont'd
Depth of sand layer (cap layer) = 9 in
Sand layer is present
Surface sediment above cap layer = 1cm
Visible organic material not present

0923 EW-RM-6
Core attempt 1, Photos taken 100-101
Penetration Depth, initial = 54 ft
Penetration Depth, final = 59 ft
Water depth = 19.6m
Sed Recovery = 60 in.
Time sampled = 0939
Depth of sand layer (cap layer) = 15.5 in
Sand layer is present
Surface sediment above cap layer = 1cm
Visible organic material is not present

0952 EW-RM-8
Core attempt 1, Photos taken 105-106
Penetration Depth, initial = 54 ft
Penetration Depth, final = 59 ft
Water Depth = 19.8m
Sed Recovery = 57 in.
Time Sampled = 1008

1/24/06 A. Rodriguez

EW-RM-8 cont'd
Depth of the sand layer (cap layer) = 10 in.
Sand layer present
Surface sediment above cap layer ≤ 1 cm
Visible organic material not present

1035 EW-RM-10
Core attempt 1, Photos taken 107-108
Penetration Depth, initial = 54.5 ft
Penetration Depth, final = 59.5 ft
Water Depth = 19.5 m
Sed Recovery = 44 in.
Time Sampled = 1048
Depth of the sand layer (cap layer) = 9.5 cm.
Sand layer is present
Surface sediment above cap layer = 1 cm
Visible organic material not present

1058 EW-RM-18
Core attempt 1, Photos taken 148-150
Penetration Depth, initial = 52.5 ft
Penetration Depth, final = 61.5 ft
Water Depth = 19.5 m
Sed Recovery = 44 in.
Time Sampled = 1111

1/24/06 A. Rodriguez

EW-RM-18
Depth of the sand layer (cap layer) = 15 in
Sand layer present
Surface sediment above cap layer ≤ 1 cm
Visible organic material not present

1125 EW-RM-20
Core attempt 1
Penetration Depth, initial = 59.5 ft
Penetration Depth, final = 64 ft
Water Depth = 21.6 m
Sed Recovery = 31.0 in
Time Sampled = 1134
Depth of the sand layer (cap layer) = 13.5 in
Sand layer is present
Surface sediment above cap layer = not visible
Visible organic material not present

1148 Head back to Harbor Island Marina to pick-up grab sampling equipment

1248 Collect rinsate RW-EW-RM-06-3-RB
1300 Motor to station EW-RM-3
Weather: sunny, cool, light wind

1/24/06 A. Rodriguez

1320 EW-RM-3
Grab attempt 1, Kept
Time Sampled = 1321
Penetration = 15cm
Water Depth = 19.1m

1328 EW-RM-4
Grab attempt 1
Time Sampled = 1333
Penetration = 10 cm
Water Depth = 19.0m
Insufficient penetration not kept

Grab attempt 2, Kept
Time Sampled = 1338
Penetration = 11 cm
Water Depth = 18.9m

1346 EW-RM-5
Grab attempt 1, Kept
Time Sampled = 1351
Penetration = 15
Water Depth = 19.0m
Bubble snail identified by Charlie Eaton

1/24/06 A. Rodriguez

1359 EW-RM-6
Grab attempt 1, Kept
Time sampled = 1404
Penetration = 15 cm
Water depth = 19.0m

1412 EW-RM-7
Grab attempt 1, Kept
Time sampled = 1415
Penetration = 13 cm
Water depth = 18.6m

1420 EW-RM-8
Grab attempt 1, Kept
Time Sampled = 1426
Penetration = 13 cm
Water depth = 18.4m

1431 EW-RM-10
Grab attempt 1, Kept
Time sampled = 1437
Penetration = 16 cm
Water Depth = 18.3m

1/24/06 A. Rodriguez

1444 EW-RM-19, location on mound
Grab attempt 1
Time sampled = 1448
Penetration = Washed out, large sub angular gravel
Water Depth = 16.8m
Insufficient penetration not kept
~~Temp~~ AR

Grab attempt 2
Time sampled = 14:53
Penetration = NA
Water Depth = 16.0m
Chain lock, empty grab

Grab attempt 3
Time sampled = 1456
Penetration = Washed out
Water depth = 16.0m
Insufficient penetration not kept

Grap attempt 4
Time sampled = 1459
Penetration = NA
Water Depth = NA
Grab flipped; empty grab

1/24/06 A. Rodriguez

EW-RM-~~5~~ AR 19 Cont'd
Grab attempt 5
Time sampled = 1502
Moved 25 ft NW of target location
Low sediment recovery due to large ~~rock~~ gravel caught in jaws
Penetration = NA
Water Depth = NA

Grab attempt 6
Time sampled = 1506
Penetration = 12cm
Water depth = 17.9m
Kept ½ of grab sample & moved 28.7 ft NW of target location

~~Grab attempt~~ AR

1515 EW-RM-21
Grab attempt 1
Time sampled = 1518
Penetration = 14cm
Water depth = 18.0m

1526 Head back to Harbor Island Marina

1/24/06 A. Rodriguez

1529 Contact Susie to inform that all core & grab sampling is completed. However, delayed getting back to Harbor Island Marina because Railroad Bridge is locked in "down" position

1610 Arrive at Harbor Island marina End of field day

1/24/06

Protocol Modification Forms

FORM 2: PROTOCOL MODIFICATION FORM

Project Name and Number: EW Recontamination Monitoring 05-08-09-29

Material to be Sampled: Sediment

Measurement Parameter: Penetration depth

Standard Procedure for Field Collection & Laboratory Analysis (cite reference):

Corer will be advanced into the sediment to refusal using enough weight to achieve the minimum target penetration depth of 80 cm (Windward, Oct 4, 2005)

Reason for Change in Field Procedure or Analysis Variation: Gravity corer could not penetrate sand cap layer, even with additional weights. Although there was only 60 cm of penetration, there was clearly a 2-2.5 cm layer of material above the cap material, triggering a grab sample anyways.

Variation from Field or Analytical Procedure: Accept core from EW-RM-15 although penetration depth was only 60 cm.

Special Equipment, Materials or Personnel Required: none

Initiator's Name: T. Do Date: 12 Jan 06

Project Officer: Jodi Date: 3.30.06

QA Officer: Susan M Brodley Date: 3/30/06

FORM 2: PROTOCOL MODIFICATION FORM

Project Name and Number: EW Recontamination Monitoring 05-08-09-29
Material to be Sampled: Sediment
Measurement Parameter: N/A

Standard Procedure for Field Collection & Laboratory Analysis (cite reference):
Sediment cores will be collected using a 3-inch (outer diameter) gravity corer (Windward, Oct 4, 2005)

Reason for Change in Field Procedure or Analysis Variation: Gravity corer could not penetrate the sand cap layer to obtain enough sediment penetration.

Variation from Field or Analytical Procedure: Sediment cores will be collected using a 4-inch (outer diameter) Vibracorer

Special Equipment, Materials or Personnel Required: 4-inch (outer diameter) Vibracorer with steel core tube and butyl acetate core-tube liners. (Hamilton P3 vibracorer, Gillette GEN-PRO generator, coring accessories - control unit, cables, core tubes, core noses, weight package, tools)

Initiator's Name: T. Do Date: 18 Jan 06
Project Officer: [signature] Date: Jan 18 2006
QA Officer: [signature] Date: 1.18.06

APPENDIX F. CHAIN-OF-CUSTODY FORMS

1 of 2 -12, -2

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 2313

Project/Client Name: East Waterway Recontamination Monitoring
Project Number: 05-08-09-29
Contact Name: Susie McGroddy
Sampled By: Thai Do, Emily Duffield, S Pierce

Ship to: ARI
Attn: Sue Dunnihoo
Shipper: hand delivered
Form filled out by: Shannon Pierce

Shipping Date: 01.25.06
Airbill Number: n/a
Turnaround requested:

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) PCBs/pest/SVOCs	Metals/TOC	grain size					Comments / Instructions [Jar tag number(s)]
1/12/06	0913	EW-RM06-01	3	sediment	X	X	X					
	0930	EW-RM06-02	3		X	X	X					
	0947	EW-RM06-16	3		X	X	X					
	0947	EW-RM06-101	3		X	X	X					
	1000	EW-RM06-24	4		X	X	X					includes lab rep. for grain size
	1000	EW-RM06-24-MS/MSD	1		X							
	1018	EW-RM06-25	3		X	X	X					
	1133	EW-RM06-15	3		X	X	X					
	1442	EW-RM06-28	3		X	X	X					
	1456	EW-RM06-26	3		X	X	X					
	1511	EW-RM06-23	3		X	X	X					
↓	1524	EW-RM06-20	3	↓	X	X	X					
		Total Number of Containers		Purchase Order / Statement of Work #								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: THAI DO	Print name: Bob Coughlin	Print name:	
Signature:	Company: ART	Signature:	Company:
Company: Windward Env.		Company:	
Date/Time: 01.25.06/1037	Date/Time: 1/25/06 1037	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

Wind Ward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

2 of 2 -12, -2

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 2314

Project/Client Name: East Waterway Recontamination Monitoring
Project Number: 05-08-09-29
Contact Name: Susie McGroddy
Sampled By: Thai Do, Emily Duffield, S. Pierce

Ship to: ARI
Attn: Sue Dunnihoo
Shipper: hand delivered
Form filled out by: S. Pierce

Shipping Date: 01.25.06
Airbill Number: n/a
Turnaround requested:

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) PCB/pest/SVOC	Natals/TOC	grain size					Comments / Instructions [Jar tag number(s)]
1/12/06	1533	EW-RM06-18	3	Sediment	X	X	X					
1/24/06	1248	EW-RM06-3-RB	5	WATER	X	X						
1/24/06	1321	EW-RM06-3	3	SEDIMENT	X	X	X					
	1339	EW-RM06-4	3	SEDIMENT	X	X	X					
	1351	EW-RM06-5	3	SEDIMENT	X	X	X					
	1404	EW-RM06-6	3	SEDIMENT	X	X	X					
	1415	EW-RM06-7	3	SEDIMENT	X	X	X					
	1426	EW-RM06-8	3	SEDIMENT	X	X	X					
	1437	EW-RM06-10	3	SEDIMENT	X	X	X					
	1506	EW-RM06-19	3	SEDIMENT	X	X	X					
	1518	EW-RM06-21	3	SEDIMENT	X	X	X					
		Total Number of Containers		Purchase Order / Statement of Work #								

1) Released by: THAI DO	1) Rec'd by: B. Congleton	2) Released by:	2) Rec'd by:
Print name: THAI DO		Print name:	
Signature:	Company: ARI	Signature:	Company:
Company: Windward Env.		Company:	
Date/Time: 01.25.06/1037	Date/Time: 1/26/06 1037	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

Wind Ward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by: